THE NEW ZEALAND beekeeper

DECEMBER 1982

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THE NEW ZEALAND BEEKEEPER

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Index

A newly unfettered honey industry

THE NZ HONEY industry has just eliminated the last vestiges of the Honey Marketing Authority; closing the door on organised honey marketing for some years to come.

Former authority chairman Ivan Dickinson feels it is ironic that the industry should be moving against the mainstream of horticultural opinion. As he points out, berryfruit, asparagus and other horticultural growers are now lobbying government for controls only a few short years after they fulsomely advocated unfettered private enterprise.

Even some citrus growers are wondering what they did, he said, little more than a year after the dissolution of the Citrus Marketing Authority.

While Ivan's observations are pertinent, they don't allow for the depth of feeling of many beekeepers who saw the HMA as something more than just a vehicle for organised marketing. For them it was a petty bureaucracy – an organisation of questionable efficiency doing a job which they felt others could do better.

For unlike the Kiwifruit Authority and some of the proposed horticultural marketing groups, the HMA was not really a grower-created body. It evolved out of the centralised marketing structures of World War II and was constructed in the belief that the only alternative to unfettered free enterprise was total control.

The Kiwifruit Authority has shown – despite its warts – that there are ways to harness the best aspects of private enterprise marketing while protecting producers from the price-cutting and other evils on the other side of the private enterprise coin.

But if beekeepers decide after a year or two of totally unrestricted marketing that they would prefer some control to be exercised, it is unlikely that any government will rush to help in the establishment of a new authority of any sort.

As government HMA reps and associate ministers have made clear over the last three years, once the HMA is dissolved, there will be no going back – at least not until there is overwhelming support for a new structure. And first there will have to be a suitable period of mourning for the authority that was.

At press-time, we learned that export prices being achieved for NZ honey were substantially below actual returns to producers (an average of local market and export) last season. If so, some of the current price cutting occurring on the local market will become worse, unless packers can get together and exercise a little collective discipline.

Price cutting, unless it is accompanied by a carefully planned programme of advertising to boost consumption, benefits nobody – especially not for a product with a fairly inelastic demand/price curve like honey.

As we go into the season of goodwill and cheer, it is probably timely to remember that markets where there are many sellers and few buyers are very sensitive to supply and demand fluctuations. The world honey market is very sensitive right now.

One of the few ways to survive in this hazardous environment is to co-operate, so that the many competing sellers become only a few. In the season of good cheer, it is hard to think of a better objective for 1983 – co-operation.

★ ★ ★

From the president, executive and secretary of the National Beekeepers Association, from the editor and staff of the NZ Beekeeper, we wish you and your family a wonderful Christmas and a bountiful and co-operative New Year.

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Full page $225 (4 insertions $205), Half page $130 (4 insertions $105), Quarter page $70 (4 insertions $65), 1/8 page $40. Special locations $30 extra. Spot colour $75 extra.

Production charges
Advertisements should be provided in a camera-ready form or as photolitho negatives. Where copy has to be typeset, or where film work or bromides are required, these will be charged to the advertiser on a time and cost basis. Minimum charge $10.

Beekeeper rates
Registered beekeepers selling queen bees, used hives, used plant and other used apiary equipment are eligible for an advertising discount of 20 per cent of the appropriate commercial rate. The same concession applies to situations vacant and situations wanted advertisements. Where the appropriate rate is in doubt, the editor's decision will be final.

Production charges only apply to single insertion beekeeper advertisements or where special artwork, filmwork or bromides are required.

Classifieds
Available only to registered beekeepers and those seeking work in the industry. $5 a column cm. No discounts apply. No production charge. Maximum size: 1/6 page.

SUBSCRIPTIONS

Commercial beekeepers: The NZ Beekeeper is distributed free-of-charge to beekeepers with 50 or more hives, subject to payment of hive levy.

Others: Beekeepers with fewer than 50 hives and other subscribers: $12.50 a year. This includes (for New Zealand subscribers only) membership of National Beekeepers Association of New Zealand (Inc).

KING BEE

(WHERE THE NBA HAS ITS STING)

No increase in hive levy

Although NBA finances are running at a deficit, it has been decided not to increase the Hive Levy during the price freeze. Also, with the NBA disbanded, the levy will now only have to fund the activities of one representative organisation.

Highway beautification bees

Bees are not forgotten in the government's planned Highway Beautification Scheme. A commission answering to the minister of tourism has prepared a report on the establishment of the scheme. The report spends some time detailing the advantages such a scheme would have to nectar and pollen production in New Zealand.

If the government finally decides to proceed with the proposal, a commission may well be set up to run things. In a letter to the NBA executive, minister of tourism Rob Talbot said he notes the wish of the NBA to be involved with this scheme and that he is sure that any body formed will establish close liaison with the NBA at an early stage.

PR booklet available

Large stocks of a booklet entitled "Bees and Honey" produced by the Honey Marketing Authority are now being held at the Waitemata Honey Company in Auckland. Additional copies are being held at the NBA office in Wellington.

Any beekeepers who regularly speak to school parties or other educational groups should contact the secretary of the NBA and copies will be forwarded free of charge.

Nelson Conference

The 1983 NBA Conference will be held at the DB Rutherford Hotel in Nelson. The programme will run from Tuesday July 26 to Thursday July 28 and will feature two novel events to encourage beekeeper participation.

A mead judging competition and a photography competition have been organised. Further details appear elsewhere in this issue.

MAF will still be there

Although the position of chief advisory officer (apiculture) has been deleted by the Ministry of Agriculture and Fisheries, a close liaison between the NBA and MAF advisory services will continue. Murray Reid, the Hamilton-based advisory officer with national responsibility for beekeeping will, if requested by the NBA, attend the executive's meetings in Wellington.

Both the executive and MAF consider this to be highly important for the future health of the beekeeping industry.

Are the planners getting you down?

The NBA executive would like members who are having troubles with their local authority with regard to the siting of honey houses and hives to get in touch with the secretary. While the NBA may not be able to help an individual beekeeper with his problems, knowledge of specific cases will greatly help in the formulation of a policy so that submissions can be made on behalf of all beekeepers to borough councils, county councils and other planning bodies.

Honey for Quantas flights

The reason that Quantas uses 1½ oz jars of Canadian honey on its flights into New Zealand is because New Zealand beekeepers can't provide the product required. This information comes from the catering manager at Quantas who told the NBA executive he would be happy to buy New Zealand honey if it was supplied according to specifications. A previous approach to NZ packers, he said, had been unsuccessful.

He was replying to a NBA letter querying the use of Canadian honey over the New Zealand product and the danger of disease introduction. The catering manager made it quite clear in his letter that he was fully conversant with the problem of disease introduction and supplied a copy of a research paper which showed that the normal heat treatment involved in processing liquid honey would kill S.pluton bacteria if indeed it was present in the honey.

New NBA secretary

Beekeepers with an interest in football will find a kindred spirit in Steuart Goodman the new NBA national secretary. Mr Goodman was secretary of the New Zealand Football Association for eight years until 1981 and is currently president of the New Zealand Junior Football Association.

Mr Goodman replaces Len Jones, who was secretary for less than a year under the supervision of David Dobson of the Pork Industry Council.

Mr Goodman is also domiciled in the Pork Industry Council's Pastoral House, Wellington, offices where he is provided with full office secretarial and back-up services by the council staff.

Mr Goodman is married with no family and hails from the United Kingdom. Born in London and bred in Bournemouth, Mr Goodman came to New Zealand in 1952 and has had his tertiary education and working life here.

Co-ordinate those field days

Good beekeeper politicians they may be, but supermen they are not. However, that was the role NBA executive members were expected to fill when asked to attend three South Island field days on Saturday, October 2. ▷

▷ With field days in Otago, North Otago and on the West Coast on this day, the South Island members had to do some fancy footwork to keep local branches happy.

When the matter was discussed at the September executive meeting, the wish was expressed that the various branches should co-ordinate their activities better; also that branches should not just "expect" executive members to turn up at meetings. An invitation at least a month in advance is both a courtesy and necessity for people who have to plan their time carefully.

Get them talking!

At its September meeting, the NBA executive resolved that local branches should be asked to approach local catchment boards and county councils to ensure that bee trees were incorporated into public tree planting schemes.

Also beekeeper representatives were to be asked to advise local authorities about beekeepers' floral needs so that these could be taken into account in weed control programmes.

The NBA executive believes that many of these problems are best handled at a local level and that all branches should depute one or more of their members to do the necessary liaison.

Mystery disease leaves them stumped

BRITISH AND now American bee disease experts are no nearer to a diagnosis for the unexplained condition bee larvae known commonly as half moon disease.

The condition has been reported from many parts of the country and its symptom – dead larvae lying in a half moon position – has not yet been attributed to any single causative agent.

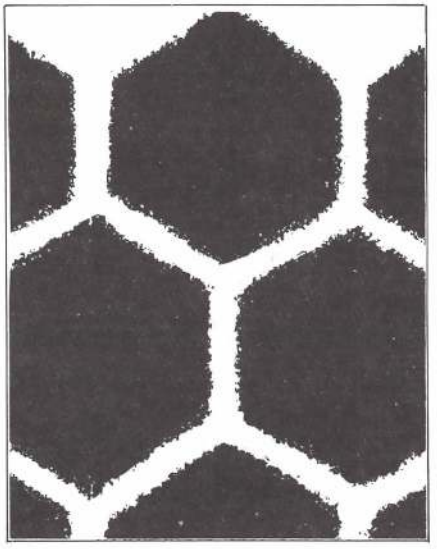
Pat Clinch, MAF's Wallaceville-based apicultural scientist has now tested many samples, but according to Murray Reid, has concluded that Streptococcus pluton – the causative agent for European Brood Disease – is not the culprit. Samples sent to Doctor Bailey at Rothhamsted and more recently to the United States similarly drew a blank.

Mr Reid told the NBA executive at their September meeting that although the disease symptoms resembled those of European Brood Disease, it is now thought that a virus may be responsible.

Complicating the issue of diagnosis are quarantine conditions which prevent samples of exotic diseases being brought to New Zealand for comparative purposes. Similarly, difficulties also arise with diagnosis overseas, as other countries are not keen to import diseased bee material from New Zealand.

Dr Bailey, who was previously doing diagnostic work for Mr Clinch, can no longer be of any help because of newly-imposed British quarantine barriers.

At this stage American laboratories are being used by Mr Clinch though, even with their help, diagnosis is made even more difficult by the distance involved and the time it takes to get samples to the American researchers.



The HMA is no more

ASSUMING EVERYTHING went according to plan in Wellington on December 2, the NZ Honey Marketing Authority will now be no more than a memory.

When the NZ Beekeeper went to press in late November, it had been arranged for the directors of the HMA to have a final meeting in Wellington, with the president of the National Beekeepers Association as an invited guest. The main agenda item: A resolution to ask the government to wind up the authority.

An appointment had been arranged with the undersecretary of agriculture, Rex Austin, so that following the meeting an application could be made for regulations winding up the HMA and transferring its assets to the honey industry trust funds.

Speaking in late November, HMA chairman Ivan Dickinson said he couldn't see any reason why he wouldn't be savouring the bottle of champagne promised by Percy Berry for the day when the HMA was finally dissolved.

At that time the honey industry trust deeds had been finally agreed to by the NBA executive, the Crown Law Office and the Ministry of Agriculture and Fisheries. Formal approval from the HMA board was to be given at the December 2 meeting.

A draft balance sheet dated August 1982 showed the HMA to have assets of more than $700 000. Since then there have been some board and other costs which have eaten into this, but Mr Dickinson believes the trusts will be funded by more than $700 000.

At the 1982 industry conference Mr Dickinson described the final year of the authority's existence as being the most trialling and demanding of all the years he had been involved in the industry.

The HMA ceased North Island trading on September 30, 1981 and in the South Island a week later. Following that there were seemingly endless negotiations with potential buyers of the Auckland premises, with the co-operative of former HMA suppliers and with staff members for redundancy pay.

Load-out bans and stoppages were used by unions and staff to back their claims – with three or four weeks production lost as a result.

We felt at the time, said Mr Dickinson, that there was no need for a South Island redundancy deal as the HMA staff there were being taken over holus bolus by the cooperative. But after September, some staff were offered their jobs back to get the plant operating again because it has been stopped with "startered" honey still in the pipes.

The authority continued to pack on contract for the cooperative until the end of November 1981. The purpose of this was to ease the smooth transfer of assets and to ensure there was no disruption in the market.

At that stage the plant was auctioned off and the Auckland building was put out to agents for sale. By the end of October 1982 the Auckland building had been sold for $475 000 and a dispute with the cooperative over the valuation of stock and plant had been settled.

"All the board members and I never believed that the wind-up would take so long. The motivation of legal people takes some doing," he said, "and can prove to be very frustrating."

Mr Dickinson says the Honey Producers Co-operative has the right to credit of $600 000 from the trust funds arising from the dissolution of the HMA. By May 1992, this credit will be down to nil.

No leadership plans

AS A CHAIRMAN without an authority, Ivan Dickinson is in no hurry to rush back into industry politics.

After a stint as NBA president and HMA chairman he is adamant that it is time for some young blood to come through. I'll be only too pleased to be a source of reference for newcomers to industry politics, but I feel it would be wrong for me to seek to hold onto a leadership position, he said.

At this stage Mr Dickinson is reassessing his objectives and taking a keen interest in the development of a commercial beekeeping unit at Telford Farm Training Institute. The institute, which has been the site of many apiary management courses, plans to establish a 400-hive operation as part of its training facilities.

"When I was on the NBA executive I worked hard to get a cadet scheme established for apiary workers, but we didn't seem to get our act together. Now, with a continuing lack of trained apiary workers, it looks as though we might achieve our objective.

"The Telford plan – and this has the full support of the people at Telford – is not only to train beekeepers, but also to keep beekeeping to the forefront of all the farming and horticultural courses they hold there. I think this is very important – that the role of beekeeping in agriculture is recognised by farmers and orchardists."

A beekeeper viewpoint . . .

Micro-encapsulated time bombs

EVER SINCE I read an article on micro-encapsulated poisons in "The Apiarist", I have been nervous about their introduction to New Zealand.

At present they are being evaluated by researchers at Ruakura for grass grub control. The researchers say this is not a very cost-effective way to control grass grub, though tests are continuing.

Micro-encapsulated insecticides are micro-size, are light and because of their size and method of manufacture are electrically charged. If a fly, bee, wasp or other insect flies near the capsule, it will 'jump' the intervening millimeter or so. If transported into the hive and packed in pollen cells you have a potential time bomb to deal with.

"The Apiarist" (July 1982, No. 26) gave a very apt, if not slightly biased pro-beekeeper opinion in their article. But they forgot to mention the other side of the argument: The effectiveness of insecticides to date, the cost of these and the total reliance on insecticides for export quality goods.

Nobody will buy apples, peaches, etc., full of 'bugly apparitions'. They also forgot to mention the discovery recently of the 'sticker' additive used with micro-poisons, a chemical used to make sure the insecticide sticks to the surface on which it is sprayed. This ensures they kill only the bugs they are meant to. And if sprayed in the evening and orchards are subsequently mowed, no problems result.

I hope micro-encapsulated poisons don't come to New Zealand. They are one thing we can do without. But don't misinterpret the facts before making a decision about what one thinks of these 'things'.

Further reading of both sides of the argument can be obtained from the American Bee Journal, July 1981, vol. 121 No. 7, pages 510-511, under the heading Pencap M versus Pencap^{m} + sticker.

Also American Bee Journal, May 1980, vol. 120 No. 5, page 391: "A recipe for disaster because of Pencap micro-encapsulated poisons." And American Bee Journal, August 1981 vol. 121 No. 6, page 580.

As a beekeeper I dislike poisons, especially insecticides. But to be reasonable, we must accept they are necessary and here to stay. If we ensure we are well-informed about both sides of the argument and keep our heads clear, we can manage this problem in the same successful way we have managed other insecticides. **—Bill Whitlock**

NBA takes action on insecticides

FOLLOWING RECENT publicity about micro-encapsulated pesticides the secretaries of both the Marlborough and West Coast branches wrote to Ian Berry, the NBA representative on the Pesticides Board, expressing the concern of their branches about the possibility of these substances being used in New Zealand.

Because of the concern of these and other beekeepers Mr Berry wrote to Mr Brian Watts, the registrar of the Agricultural Chemicals Board in September.

Mr Berry drew Mr Watts' attention to an article which appeared in the July 1982 issue of "The Apiarist" relating to micro-encapsulated poisons and the beekeeping industry.

"There has been considerable concern among beekeepers about the possible introduction of this type of insecticide into New Zealand," he told Mr Watts. "Any information you could let me have as to whether or not this form of insecticide is likely to be introduced to New Zealand either on an experimental or commercial basis would be appreciated so that I can keep the beekeeping industry up to date on this matter."

Mr Watts said in his reply that there were as yet no encapsulated formulations being marketed in New Zealand. "You may be assured," he said, "that before registration is granted to allow commercial use, the question of their effect on bees will be very carefully evaluated as I am fully aware of the potential difficulties."

Mr Berry told the NZ Beekeeper that other sources have indicated there has already been some small scale experimental work done in New Zealand with micro-encapsulated pesticides, mainly on grass grub control, but he said that there seems to be no good reason to use this form of pesticide in New Zealand on a commercial basis at present.

Further enquiries by the NZ Beekeeper reveal that two micro-encapsulated insecticides are registered for experimental use only. These registrations were taken out in late 1981.

Where new chemicals show great commercial promise an application for provisional B (limited commercial use) is invariably made after a season's experimental use. That these micro-encapsulated insecticides haven't been upgraded by the board indicates that the companies concerned either don't see a viable market for the products, or have decided to collect a second season's trial data before making an application.

Ian Berry takes over

Paul Marshall

ON SEPTEMBER 9 Paul Marshall attended his last meeting of the Agricultural Chemicals Board and Ian Berry attended an unofficial meeting of the Pesticides Board.

"Paul has served the industry well for about four years on the Agricultural Chemicals Board but now finds his other business commitments are making it difficult for him to carry on until the final change-over is made to the new Pesticides Board," writes Ian Berry. "Because of this, I have agreed to stand in for him on the Agricultural Chemicals Board until the Pesticides Board holds its first official meeting probably late this year or early next year.

"I trust we all enjoy a summer free from spray damage to our bees."

Ian Berry is the NBA's official nominee on the Pesticides Board.

BURRCOMB

from the editor

Honey co-op pays out

We were surprised to hear that the NZ Honey Producers Co-op only retained $12 510 from its total $2.7 million first year honey sales . . . despite a good trading year. This represents less than 10 per cent of subscribed capital and only .46 per cent of turnover, in a year in which the inflation rate was 16 per cent.

On further enquiry we understand this was apparently offset by a special 17c/kg levy on honey supplied by shareholders. This will be retained in the shareholder's name by the co-op for five years to finance further development. On the information we have available this would represent another $184 000 – bringing working capital more in line with inflationary needs.

Although the co-op's first AGM was held on November 20, the NZ Beekeeper had not received a copy of the co-op's first annual report at press-time, so a more detailed report on the first season's trading will have to wait until the next issue.

Comb honey pioneer honoured

One of the first New Zealanders to export comb honey, Heini Belin, was honoured with life membership of the NZ Comb Honey Association at the association's annual meeting held in Waitangi.

Mr Belin is a foundation member of the association and has served as its secretary/treasurer for 20 years.

At the annual meeting (which coincided with the NBA AGM) several members spoke of Mr Belin's valued work over the years. He was accorded a standing ovation for his efforts.

Gorse hedges forever

According to South Canterbury Catchment Board shelter expert D.J. Stringer, gorse hedges should not be hacked back each year. In a paper prepared for farmers in pollen deficient areas, he recommends the retention of gorse hedges for shelter and pollen production.

The paper is available from the board (Box 160, Taupo).

Sweetening the tree croppers

Lisa Crozier talking honeydew.

A highlight of the NZ Tree Crops Association annual convention held in Christchurch earlier this year was a field trip which included a visit to Alan Totty's upper plain farm where sheep were being grazed under native black beech trees at 6½ EE/acre.

Miss Lisa Crozier, a Forest Service researcher, spoke to the 300 or so tree croppers about honey dew production from beech forests, while local beekeeper John Syme did a roaring trade selling the finished product.

Unfortunately for beekeeping interests there were no commercial beekeepers present among the group of enthusiastic tree planters – of whom most were sympathetic to the notion of providing trees for bees, but lacked the practical knowledge of how this was best achieved.

At another call – to Roland Clark's Stavely farm – bees were seen collecting rust pustules from poplars, a sure sign that the trees in the district were not meeting the protein requirements of the local bee population.

Less mating in the rainy north

The logic of siting New Zealand's main queen breeding operations in the liquid north has always eluded your editor.

This year the north is even more liquid than ever – so much so that Terry and Pat Gavin and the team at Whiteline Queens have come up with a smart idea, no doubt created during an extended wet day smoko.

The idea involves the building of a mating castle of sufficient dimensions to enable mating flights to proceed without interference from the tempest outside.

While Pat doesn't say whether an application has been made to the rural bank for funds or not, it doesn't take much imagination to guess the reactions of the bank's appraisers for a loan to build a house of ill repute.

A safer suggestion would be to site the enterprise in a district with more reliable weather. Though this year it is a little difficult to recommend a suitable district.

The legal sting

The District Court at Cromwell was the scene of NZ's first recent conviction for the theft of bee gear. The culprit was a local carpenter who stole 23 hive frames while in "a fit of depression".

The fit of depression was apparently a prolonged affair as the frames were stolen over a nine month period from January to September. The complainant beekeeper said he lost $250 worth of honey as a result. The defendant said he didn't know why he did it.

MAF makes a very clear warning that all bee gear must be positively fire-branded for identification – personal recognition without material proof would not stand up in a defended court case.

Southland history

The Southland Branch of the NBA is working on a history of the branch. Any stories or photos of old identities and former beekeeping practices would be welcomed.

Write: Jack Frazer, Ryal Bush, Southland.

P.R. guidelines set out for industry

With pressure from MAF spokesman Mike Gould at the Waitangi conference and a growing awareness among beekeepers of the need to communicate better with many sectors of the public, public relations was a major topic at the September NBA executive meeting.

NZ Beekeeper editor and public relations consultant Trevor Walton presented a paper to the meeting in which the need for an industry public relations strategy was outlined, along with possible courses of action.

Because a co-ordinated programme can be a reasonably expensive exercise, the executive decided to further investigate public relations strategies while determining the likely source of funds.

While funding will probably come from the levy or from the industry trust fund, the executive is loathe to increase the levy during a price freeze or to commit trust funds it does not yet have.

President Tony Clissold said he supported the concepts outlined in Mr Walton's paper, but added that the support was at that stage unfunded. In the meantime he said that branches should discuss the concepts involved and asked that an article be prepared for the "NZ Beekeeper".

A MODEST public relations programme for the beekeeping industry could be expected to have marked benefits, according to Trevor Walton of Agpress, an agricultural public relations consultancy.

This is because many public groups are already sympathetic to beekeeping and hive products. The task is to communicate with these people and let them know the needs of the industry.

"There is a growing public awareness about natural foods," says Mr Walton. "Also most farmers and horticulturists have a background understanding of the importance of bees to primary industry.

"If we can build on this awareness and understanding, through a planned communications programme, beekeeper needs will be increasingly catered for wherever decisions are made."

Mr Walton says there has been a tendency in the past for the NBA to expend much of its energy "fire-fighting" on the industry's behalf. "As a small industry, we are often forced to chase after government departments and local bodies, to ask them to adapt their policies to meet beekeeper needs," he explains.

"The answer is to build our profile so that when the Rural Bank draws up a Rural Housing policy, when Trade and Industry creates an export incentive programme or when MAF or DSIR determines research priorities, beekeeping is up there getting a slice of the action right from the beginning.

"Similarly when farmers, catchment boards and noxious plant authorities start planting trees or killing weeds, it should be second nature for them to have beekeeper needs in mind."

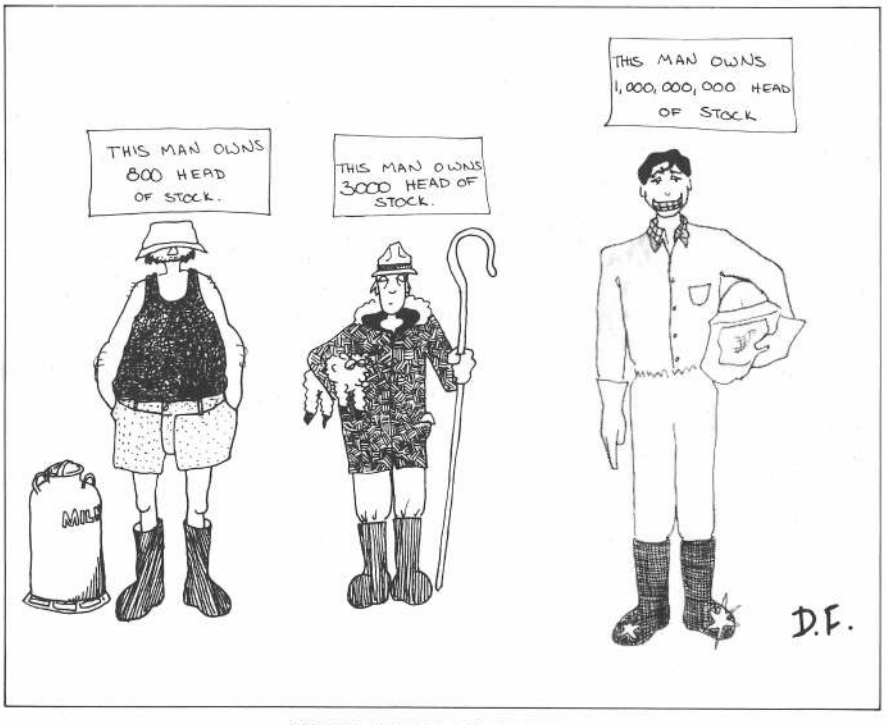
"The pastoral industry and now horticulture have been built on our pollination services – we mustn't let anyone forget it."

Mr Walton says that public relations doesn't work miracles, but achieves results when public relations principles are applied in a systematic and skilled way. It is also an on-going process – not something which is switched on and off according to apparent need.

"For a small industry in particular, which doesn't have the muscle to bluster its way toward a goal, an on-going public relations programme is essential. We will only have our needs catered for if we have the goodwill and understanding of other lobby groups and decision makers. This will only result from the planned communications which lie at the heart of an effective public relations programme."

Public relations does not only have benefits in terms of more effective political representation. It may be used to promote the consumption of hive products. Also the enhanced image of the industry which results from a successful programme is likely to be reflected in membership support for the NBA.

First, however, the target "publics" need to be defined. In his report to the NBA, Mr Walton defines six such groups: Government, local bodies, farmers, the general public, consumers and beekeepers and lists various means of communicating with them.



NEED WE SAY MORE

BEEKEEPERS TECHNICAL LIBRARY

LIBRARY NOTES

From Mr Murray Reid we received a number of Aglinks containing articles written by advisory officers. We hope to get a complete collection of what has been and will be written by MAF people pertaining to beekeeping.

From our Editor we received a folder with 10 pamphlets published by IBRA covering subjects of world wide interest such as suppliers of equipment, grants, student exchange, tree planting for bees, work in developing countries etc.

Many thanks.

I am still bugged by a few very slow overdue borrowers. Reminders take time and postage. PLEASE! If a reminder does not work (as appears to be the case) I am going to suggest that name and address of culprits will be printed in this magazine. Not nice, but it just could do the trick.

John Heineman
P.O. Box 112
Milton

PUBLIC RELATIONS

Government

At government level the report places considerable emphasis on the need for regular contact between the NBA president and the minister of agriculture. A biennial fact sheet for parliamentarians and senior bureaucrats is suggested to keep decision makers up to date with industry performance, problems and personalities.

Mr Walton also points out that when Federated Farmers or the Fruitgrowers Federation lobby government on behalf of all rural interests, the support of the NBA should not just be implied. There should be a clear statement of endorsement or comment attached to the submission.

With regard to local bodies, Mr Walton recommends extensive involvement of local beekeepers associations in presenting beekeeper viewpoints. The NBA national office should, however, provide back-up in the form of standard town planning ordinances, guidelines for county weed control and lists of trees which meet forestry, shelter or erosion control needs while also being useful for bees.

Farming community

To influence the farming community and general public, a programme of regular press releases is recommended. For farming magazines and other farm media, articles and scripts should emphasise the importance of pollination services to the farm community while plugging away at building awareness of beekeeper needs – trees for bees, valuable noxious plants and careful pesticide use.

Both farmers and the public at large, says Mr Walton are impressed by export stories. So honey exporters should be able to contact the NBA publicity agent so that news of significant sales can be disseminated.

Since some of the most effective PR is conducted at the man-to-man level, Mr Walton also recommends that individual beekeepers should be encouraged to join groups like the Tree Crops Association and Farm Forestry Association. At a national and local level the NBA should seek affiliate membership of Federated Farmers and the Fruitgrowers Federation.

General public

The general public, says Mr Walton, needs to have a good awareness of the importance of the beekeeping industry and its role as a producer of natural foods. This ensures that when politicians and officials make decisions which are sympathetic to the industry they know there is a measure of public support for the industry. Heightened awareness will also be reflected indirectly in honey sales, the attitude of school leavers and others seeking employment, the response of the bank manager and the general social status of beekeepers and their families.

General human interest and export articles will all help raise the profile of the industry with the general public, but there is also a particular need to help the public understand and cope with the more frightening aspects of bee behaviour.

It is important that people understand the basics of bee safety, the difference between bees and wasps and how to recognise and treat a potentially dangerous allergy. Understanding is the best weapon in the fight against fear.

In general, publicity on these sorts of matters is readily obtained, says Mr Walton, though it is important that the message given the media is clear and accurate so that unnecessary alarm is not created.

Standard fact sheets on these matters should be prepared so that branches or the national office can give these to the media when problems arise. Also, an article should be prepared for the national media each summer on some aspect of stinging insects – the time of the year when people are most likely to be stung.

At the start of the swarm season, each branch should approach a local media representative and advise them of the likelihood of swarms, who people should contact for removal etc. The media rep should also be told that when the first swarm of the season is about to be removed, that the beekeeper will ring so that a photo can be obtained. Encouraging and facilitating early removal of swarms lessens the likelihood of alarm and unnecessary stings.

Market support

Mr Walton says good public relations in other areas will have a spin-off in the market place. Conversely, negative media coverage (toxic honey scares, sting fatalities, swarm attacks) will have a negative spin-off.

To minimise this negative impact, beekeeper spokesmen should never attempt to cover-up problems or give reason for the media to blow occurrences up out of proportion. Factual information should be disseminated and it is suggested that it may be desirable to draw up guidelines for branch and national spokesmen in the event of a fatality where they are asked to comment.

▷ To avoid negative associations being made between bees and honey, the NBA and individual beekeepers should avoid the term "foul brood" in dealings with the mass media and general public, says the report.

Any suggestions of toxic spray contamination of hive products sold for human consumption should be pursued vigorously by the NBA. If in fact there is a problem at any time it should be discovered and information publicly released by the industry, rather than by reporters thinking they have dug up a scandal. Individual beekeepers who consider there is a problem should take the matter to a branch of a national NBA official for prompt action – on no account should an individual beekeeper approach the media.

A brief should be prepared by the NBA on toxic (tutu) honey, outlining how it occurs and the measures which have been taken to prevent any risk to the public. This should be made available to branch officials and NBA spokesmen.

While Mr Walton says the advertising of honey is the domain of those who sell honey, useful results can be achieved through low-key publicity basically involving the distribution of honey-based recipes to the media.

Beekeepers

While a good public profile for beekeeping will be reflected in beekeeper support for the NBA, Mr Walton says that the NBA should not just assume that communications with members are adequate. Poor communications breed distrust and end up with members taking their gripes into the public arena – to the cost of the whole industry.

Once every five years or so, the NBA should survey members to ensure their needs are being met. Without this, says Mr Walton, there is a danger that the association's activities may only reflect the needs of those beekeepers who happen to be politically active.

One of the strongest assets of the NBA is its healthy branch structure, says Mr Walton. It is his belief that a public relations policy implemented solely from a Wellington head office has many weaknesses and the support which branches can give through liaison with other primary industry groups, local bodies and media at a regional level will help build a strong and durable PR presence for the industry. Thus any future changes in organisational structure of the NBA should take into account the need to maintain strong and active branches, each with sufficient funding and autonomy to make participation by individual beekeepers worthwhile.

The NBA, he says, should adopt a modern logo (perhaps the one used on the NZ Beekeeper) so that all branches, and head office convey a smart and unified image in their correspondence. Copies of the logo should also be made available to branch publicity officers to use on branch newsletters, newspaper advertisements and so on.

Cost

In his report, Mr Walton comes up with a figure of $5 000 a year as being a "workable minimum" to fund a PR programme. On top of this there would be additional research and set-up costs in the first year. The extent of these would depend on who undertook the work – whether an agency, the NBA secretary or volunteers from the executive.

Price freeze anomalies

by Ian Berry

THE PRICE freeze has created an interesting situation in pricing for the producer-packers: Packers who did not increase their prices before the freeze have not been able to get permission to move their prices up, yet it appears that some of those on the lower prices are reporting rather slow sales. Others who raised their prices before the freeze are making above average sales.

On October 13, 1982, the National Beekeepers' Association secretary sent a circular letter to 70 producer-packers requesting them to forward a price list for the price information service.

By November 2, only a disappointing 10 lists had been made available, but the following range of prices at which honey is being delivered to wholesalers' warehouses was compiled from that information: 250 g pottles $7.40 to $8.16 per dozen; 500 g pottles $13.40 to $15.48 per dozen; 500 g glass $16.55 to $17.00 per dozen; 900 g pottles $24.00 to $26.42 per dozen; 2 kg plastic $52.00 to $58.30 per dozen; 2 kg tins $58.25 to $60.65 per dozen; 6 kg plastic pack $157.20 to $164.40 per dozen; 30 kg tins $60.00 to $68.00 each; fill own container $2.00 to $2.60 per kg.

Please note that the wider range of prices shown above as compared with those in the September Beekeeper do not reflect any price changes but rather better information from which to work.

It appears that while there will be no shortage of honey in New Zealand, before the new season's honey becomes available there will be a below normal carry over of honey.

The overseas market

Australia has moved the minimum prices up slightly and from the very limited information available on overseas sales of New Zealand bulk honey it seems that New Zealand honey is maintaining its premium position.

In the USA prices paid by packers to beekeepers in September 1982 for bulk extracted unprocessed honey, drums returned, seem to range from 45 cents to 56 cents/lb. Converted to kilograms and New Zealand currency at November 5, 1982, these prices could be $1.39 to $1.73/kg.

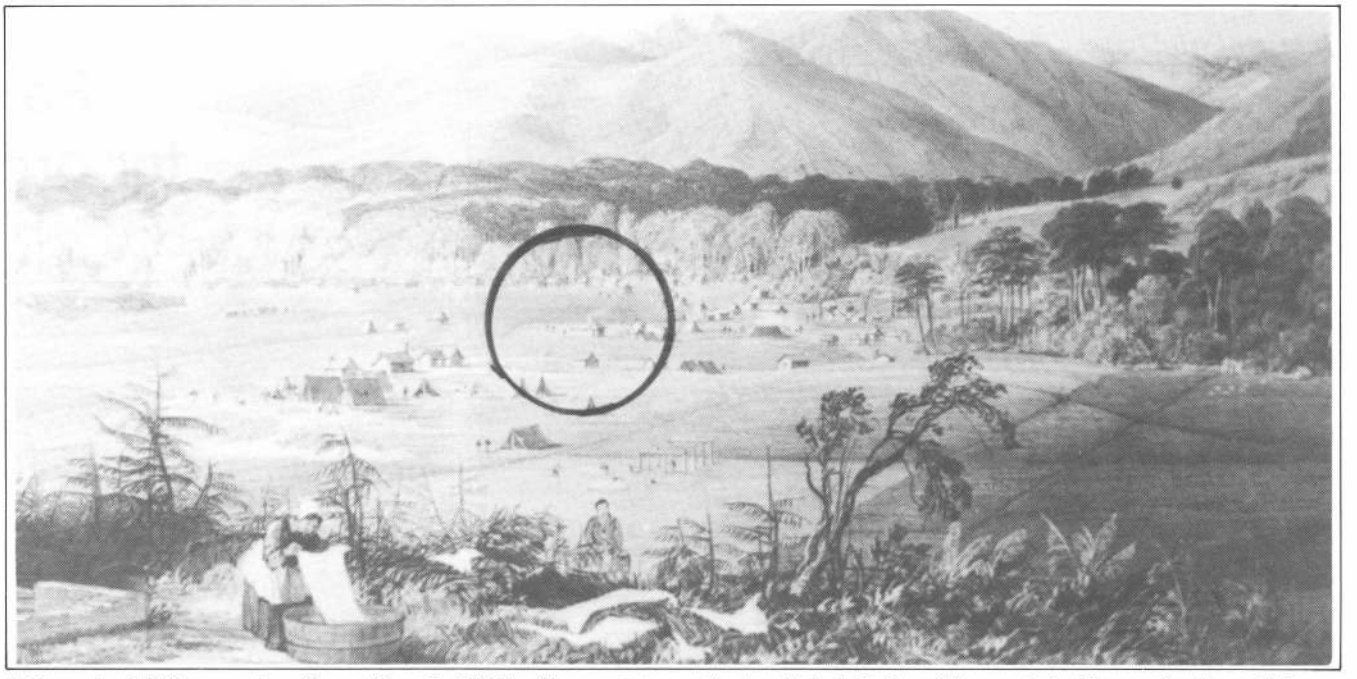
CONFERENCE COMPETITION

The hosts of the 1983 Conference, the Nelson branch, have all you keen competition buffs in mind already. The branch has planned two activities:

Photographic competition – in three categories: A. Humour, B. Bees and flowers; C. Beekeeping activities.

Minimum size 9" x 7". Photographs are to be sent to P.O. Box 879, Nelson, by June 30, 1983.

Honeymead competition – to be judged by popular acclaim at the final evening social. Entries to be brought with those coming to Nelson.



Nelson in 1842 – a view from Church Hill looking east towards the Maitai Valley. The encircled house is that of Rev. Charles Saxton, who brought the second hive of bees to Nelson in that year.

Nelson bees, 140 years on

by Andrew Matheson, apicultural advisory officer, MAF, Nelson.

MANY BEEKEEPERS know that the first honey bees in New Zealand arrived in Northland with the sister of a missionary.

"It was on the 13th of March, 1839, that the good ship 'James' anchored off the Mission Station of Mangunga, Hokianga, New Zealand. This ship brought a party of missionaries, among others the Rev. J. H. Bumby and his sister – Miss Bumby, who accompanied her brother as housekeeper. This lady brought with her the first bees I ever saw." (From a letter quoted in Isaac Hopkin's Bee Manual).

But what about the mainland – when did the first bees reach here?

Again, quoting from Hopkins:

"... the credit for sending the first bees from England to the South Island successfully lies with Mrs Allom, the mother of our respected citizen, A.J. Allom, Esq., of Parnell. They arrived in the barque "Clifford" in May, 1842, and were consigned to Captain Wakefield, the then head of the Nelson settlement. For her successful introduction of bees into New Zealand, the Society for the Encouragement of Arts, Adelphi, London, awarded Mrs Allom the silver Isis medal in 1845."

While doing some family history research at Nelson Museum some time ago, I found notes relating to this shipment of bees. They certainly did come out on the "Clifford", but they were not consigned to Captain Wakefield.

On board the "Clifford" for that voyage was J.W. Saxton. He kept a detailed diary, a copy of which is now in the Nelson Museum. On December 17 1841, while still in London, he wrote:

"Miss Wakefield came on board with a party of friends. One of them, a Mrs Allom, explained to me an ingeniously contrived hive of bees which was going to New Zealand in the charge of Charles (Rev. Charles Saxton, J.W. Saxton's brother) who had not yet arrived on board." The "Clifford" arrived in Nelson on May 11 1842.

Later on we see how the confusion with Captain Wakefield occurred, as J.W. Saxton records that the bees were sold to him. On June 3 1843 he wrote:

"Went to a sale of Charles' effects. Captain Wakefield bought the hive."

Not the first

But was the hive that arrived on the "Clifford" in May 1842 the first in the South Island? I think not. In the "Nelson Examiner" for Saturday October 8 1842, I found this fascinating snippet:

"When Dr Imlay visited Nelson in April last, he brought with him, as a present to Captain Wakefield, a hive of bees. These interesting and useful colonists are, as usual, among the busiest of our settlers.

"It is difficult to ascertain where they obtain their wealth at this season of the year, but they do find it somewhere, and return with well-laden thighs. The vessels from the Australia continent will most likely bring us some hives after the coming swarming season; at least it is hoped so. If there must be luxuries, let them be 'home-made'."

Dr Imlay had chartered the barque "Brilliant" to bring stock from Australia to Nelson for Captain Wakefield. The Nelson Examiner of Saturday 23 April 1842 reported that:

"The barque "Brilliant", Captain Ritchie, arrived here on Monday morning last (i.e. 18 April 1842) in 10 days. Dr Imlay, by whom she was chartered arrived in her. Her cargo was stock from his well-known herds and flocks.

So it seems that the bees on the "Clifford" were pipped at the post, even if by a little over three weeks.

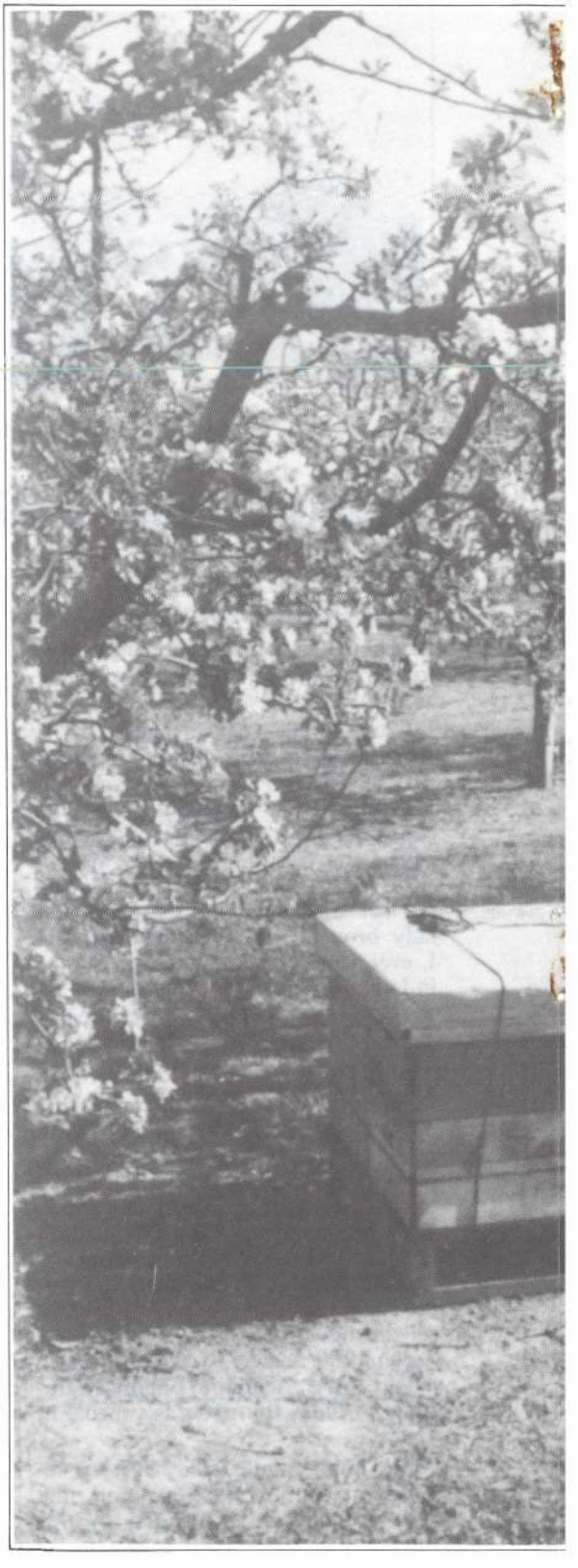
The hive from Dr Imlay must have survived the winter, as on August 1 1842 Captain (Arthur) Wakefield wrote to his brother William: "I have got a fine hive of bees doing very well". (He didn't buy the "Clifford" hive until the next year).

I wonder if the Society for the Encouragement of Arts wants its silver Isis medal back?

Pallets are loaded two at a time on to the truck.

Palletise for orchard

by Ian Berry, H



WHILE KIWIFRUIT pollination has been making headlines in recent times, pollination of other fruits in Hawkes Bay continues to expand although at a much less spectacular rate. Arataki Honey Limited has been providing a pollination service to Hawkes Bay orchardists for more than 30 years and in recent years has been placing about 1 000 hives into the orchards for the spring blossom.

Moving these hives into the orchards over a period of about six weeks has not proved too much of a problem and seems to fit in with our other work. However, shifting the bulk of the hives out again over a few days, usually just before and over the four day holiday period of the Hawkes Bay Show and Labour Weekend, can be quite difficult because it is already one of the busiest times of year with other hives needing feeding, supering, swarm control and shifting from spring sites.

Over the last nine years we have been gradually changing our Hawkes Bay hives over to pallets until at the present time we have more than 5 000 of our 6 000 hives on pallets holding four hives each. Originally the change-over began to combat stock and wind damage to our hives, and, particularly, to enable us to run two-queen hives without getting them blown all over the farms during November when they were stacked up high waiting for the honey flow to start.

Well, I have been experimenting with two-queen systems for at least 20 years and have yet to come up with a really practical system that shows more profit than single-queens hives (although I think I am getting close) but having the hives on pallets is proving to have other advantages one of which is the ease of shifting hives in and out of orchards with a forklift.

Spring 1981 was the first year we had our four-wheel-drive forklift and tip-trailer to move the forklift around on, available to move palletised hives into orchards and it has proved very helpful in improving our pollination services. Not only are we able to move the hives with less physical effort and with one beekeeper instead of two, but also we are able to place the hives among the trees much more easily than when we are using a small truck which can be slow and cause some damage to trees and trunks when the rows are planted close together.

Because it is not necessary to actually touch the hives by hand when moving them with the forklift, we almost never light a smoker or have to wear a veil or gloves when shifting hives during the hours of darkness when most of the orchard work is done.

To give some idea of the savings in beekeepers' time, I would estimate the manhours spent shifting hives in and out of orchards on pallets to be something less than 25 per cent of the manhours spent shifting the same number of hives as single units.

More specifically, if the hives to load are all in one apiary, a full load of 64 hives on 16 pallets can be loaded and roped ready to go in 30 minutes. That is from the time the driver leaves the cab until he gets back in the cab again.

The pallets are loaded two at a time which means eight lifts onto the truck. The pallets are very stable on the truck and never seem to move, however we

d hives pollination

avelock North

Pallets are placed between the trees in such a way that the orchardist can still mow the grass and spray when necessary without the hives being in the way.

put four ropes across just in case and also to hold the cover down if we are travelling in daylight.

In one apple orchard where we placed 72 hives this spring, the 18 pallets were distributed around the orchard in approximately one hour with some help from the orchardist and his small truck. In this case, the extra two pallets above our normal load of 16 were put on the truck three pallets high.

In removing the hives from the orchards one man can remove a total of more than 100 hives from up to 10 orchards in around five hours.

We normally start loading just before dark so we can travel along the road between orchards without covering the hives. The increased speed we are able to move the hives out of the orchards has helped reduce spray damage to the bees.

In 1981 we applied a surcharge of four dollars per hive above what we would have charged for pollination hives to cover the cost of spray damage to our bees in 1980. During the spring of 1981 damage was somewhat less, enabling us to reduce the surcharge to three dollars per hive this year, and the indications at the time of writing this article (late October, '82) are that we will be able to reduce the surcharge still further and possibly do away with it altogether next season.

The price freeze, which prevented us from increasing our prices to cover the increased costs from spring 1981 to spring 1982 together with the reduction of the surcharge for spray damage, meant that our price per hive for Hawkes Bay pollination in 1982 was one dollar less than in 1981. The prices for 1982 including the three dollar surcharge were as follows:

1 to 3 hives	$27.00 per hive
4 to 9 hives	$24.00 per hive
10 or more	$20.00 per hive
Palletised hives	$76.00 per pallet of 4 hives.

Compared with prices charged for kiwifruit pollination, $48 per hive, the above prices will seem low. The difference is because hives brought into Hawkes Bay orchards in the spring normally gain a worthwhile amount of honey and pollen from the orchards and willows, and this helps to cover the costs of providing the pollination service.

On the other hand, prices for kiwifruit pollination need to be higher because not only do many of the hives lose weight while in the kiwifruit orchards, but the hives are moved into the orchards at a time when the main honey flow is on and this means a smaller crop of honey.

While more than two-thirds of our hives that went into Hawkes Bay orchards in the spring of 1982 were on pallets, there are still some orchardists who prefer hives as single units. There are those orchardists who only want one or two hives anyway and others who like to spread out single hives right through the orchard instead of having four together on a pallet.

Once the price freeze is out of the way and we can increase the gap between the price for palletised hives and the price for single hives, it will seem likely the trend will be towards more palletised pollination. If it does it will certainly make it easier to provide for increased numbers of pollination hives in the future.

THE COLUMN this time will be a bits and pieces affair including a number of requests by me for information from you. Since I began writing these articles a year ago I've found it fairly difficult to fill them several times; I need your help and feedback.

If you think they are worthwhile and you've got anything you can help me with, especially old photographs, stories or history of New Zealand beekeeping, please send them to me. If anything I say in an article sets off a series of memories or raises any questions in you, please write them off to me soon.

So far I've gotten more compliments on the little drawing used by the editor for the heading of the articles than on anything I've written! I would like some response from you readers to include here, particularly old photographs.

A few comments on that "Tanging the Swarm" drawing would be a good way to start. A French beekeeper I met some months back gave me a different understanding of what the picture is about. I had heard that banging on tins in some way could cause a flying swarm of bees to alight and cluster so that they would be put in a skep or hive. He told me it developed rather as an indication of ownership when following a swarm.

In France as in other European countries of several hundred years ago, the percentage of people who kept bees was much higher than now, with virtually all but the rich relying on honey as a sweetener. If your bees swarmed, it was important for them to be recaptured to repopulate the skeps destroyed for honey the year before.

With all of the swarms in the air and people chasing them, some form of agreement had to be reached over ownership of the swarms once they took to the air. This is how tanging came about. So long as you were following the swarm of bees and banging a pot so that others could hear you and know that it was yours, you still had the right to try to hive it even if it landed on your neighbour's property.

Wasps

Another topic on which I wanted to write a little this time is the introduction of wasps to New Zealand. The more I think about it, the more I realize what a momentous event it was and I see an important lesson we can still learn from it. As wasps spread through the country in the late 1940's it must have caused tremendous consternation among beekeepers as they

Tanging the swarm.
"The Beekeeper Book".

Help!

were forced to face what must have seemed an impossible enemy.

Reading the old bee journals of the time gives only part of the story. During their first few seasons they were confined to the Waikato area and the few articles written about them in this period emphasize identification and eradication. Seven nests were reported and destroyed in 1945; 45 destroyed in 1946; 450 destroyed in 1947 and 877 in 1948.

From a first season localized around Hamilton they spread by 1948 from Pukekohe to Te Kuiti and coast to coast. By November of 1950, the first wasp was found in Wellington and when they crossed to the South Island shortly afterward their spread was assured.

When I think how much trouble wasps give my beehives now, even when I can anticipate their activities and destructiveness, I shudder to think what a shock they must have been to beekeepers through those times. Things that you had done before suddenly wouldn't work and all your management would be affected.

Jim Barber told me he used to do a lot of his queen rearing in the autumn and over-winter 5 frame nucs in the King Country. From one season to the next this became impossible as the wasps moved in and raided the small units as quickly as they were made up. Over night he had to change his methods now this requeening method was closed to him. To have to do it so suddenly and on such a scale would be quite an undertaking.

I would like to hear some more stories from those of you who were around then and learn how you coped with the introduction. Such an adjustment shows a spirit always needed in beekeeping, though I certainly hate to have to see it applied.

The thing that got me thinking about all of this is more topical. Through present day bee magazines there are continuing series of articles to detail the spread of several diseases, pests and bad genetic strains of bees throughout the world.

At present New Zealand is free of all these diseases and pests, but the thought of their accidental introduction makes me speculate on what adjustments our present beekeeping would have to make. The wasp introduction would be the most reasonable event to compare them with, though several would even put wasps to shame as far as their impact on our beekeeping. I'm sure that beekeeping would continue; there is not much real doubt of that. But I would like to think that we need not be faced with such a sudden drastic change to our beekeeping.

To finish off this article, I would like to mention a few other topics I would like to write on, but simply don't know enough about. If you can help me at all with photos or letters please send them on so I can use them to fill out the stories.

Petrol box hives

The petrol box hive played quite a part in our beekeeping for many years and only now would the last of them be finally taken from service. How did beekeepers manage to procure enough to satisfy their box needs? Were they preserved in any way (few that I have seen have been painted)? Send me any stories you know concerning them.

Another topic I would like to touch on in a future article is early use of the motorcar in beekeeping. Where did they come into widespread use for beekeeping first? Were any models preferable because of special size or features? How many hives or boxes of honey could they handle? I know there must be some entertaining tales and photos tucked away around the country.

So I'll leave it at that for this time. If this has sounded more like a continual request for your help in writing these articles, this is my intention. On my own I can't do them and yet the editor and I think they serve a useful and entertaining purpose.

If you agree, dig through those old photos or sit down to write me a note. I hope you as readers enjoy learning more about earlier days in New Zealand beekeeping as much as I do, as there is a real wealth of information and lessons to be learned from looking at the Way We Used to Bee...

Honey bee pollinating kiwifruit.

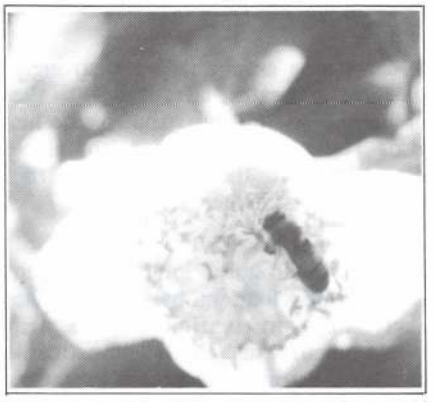
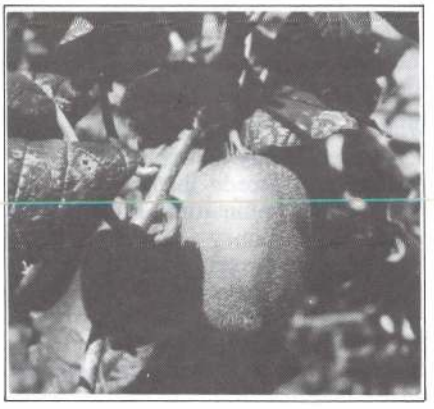


Photo: Pat Clinch



Kiwifruit on the vine.

There is a growing concern in kiwifruit growing circles about the huge increase in hive numbers required to pollinate the nation's kiwifruit crop in the years to come.

This concern is shared by beekeepers who while happy to run a profitable pollinating enterprise, have no wish to be left out in the cold by the development of artificial pollination.

Ironically the seemingly rapid progress toward the development of an artificial pollination system by Ruakura scientist Murray Hopping has heightened the concern on both sides of the fence. Like all technical developments, artificial pollination is only as good as its weakest point.

At this stage the weakest point is the final link in the chain — the pollinating spray. The use of an electrostatic spraying system was hoped this year to provide a final answer — yes or no — to artificial pollination, but the NZ Beekeeper understands that at this stage (late November) the answer is still very much "maybe".

At the September meeting of the NBA executive Mr R.H. Wilson of the NZ Kiwifruit Authority spoke about the pollination needs of his industry. He also supplied a copy of an article which we reprint in abridged form.

While association vice-president Mike Stuckey queries Mr Wilson's apparent attitude to the role of the beekeeping industry in kiwifruit pollination, Mr Wilson indicated that the Kiwifruit Authority would be happy to support any approach by the NBA for special finance to increase pollination hive numbers if they are needed.

The role of honey bees in kiwifruit

An strong viewpoint from NBA vice-president Mike Stuckey.

Mike Stuckey.

ON SEPTEMBER 23 the National Beekeepers' Association executive met with Mr Wilson, representing the Kiwi Fruit Authority. In answer to the question "What happens to the beekeepers and their hives if the scientists perfect the system of artificial fertilisation after the beekeepers have geared up and produced up to 120 000 more hives to provide fertilisation for projected plantings?" Mr Wilson volunteered the following comment: "The men making gas filaments when electricity came along found they were no longer needed and their livelihoods disappeared."

I find this attitude, while quite acceptable in a strict business sense, rather unfortunate for beekeepers in general.

Will artificial pollination ever come, or any of the other honey bee free alternatives? This is very much the $64 question, but in any event can we as an industry afford to take the risk, and risk there is.

We are told that inside this decade there will be needed up to 120 000 hives for pollination. It is certain that these numbers are not available at present.

The kiwifruit growers need these hives. Fact – a hectare of mature vines, fully pollinated is worth $40 000; the same hectare unpollinated is worth $5000, a difference of $35 000 per hectare. For the use of five to eight hives, for two weeks, the orchardists must have bees.

From this it can be seen that if there is a shortfall of hives, the growers will either pay enough to ensure rental or will provide the hives themselves.

If they provide them themselves, the honey industry runs the risk of disease problems inherent when inexperienced operators become involved in shifting hives in concentrated areas. This disease problem will be compounded if in the areas, where the bees are kept when not in the orchards, are too crowded to enable the gathering of a surplus, the operators work the hives with a minimum of manipulation and inspection. There could also be problems of swarms if hives are worked as a pollination unit for one crop.

However, if the orchardists provide their own hives there are some advantages, of a kind. If alternative pollination comes in then the orchardists will be the ones to suffer financially when the hives become redundant. Further, in areas of kiwifruit concentration, the hives will only be moved to the ▷

▷ immediate neighbourhood and won't effect the honey production over too large an area. The orchardists will also become self-policing after some significant losses from disease.

If the growers continue to rent the problems will take a different slant: It must be assumed that the rental will be lower than the value of a two storey hive, i.e. under $80 to 100 at 1982 prices, as any rental over this figure would encourage orchardists to buy their own hives.

With this assumption in mind it is unlikely that hives would be available from much over 200 kilometres away. This means that areas surrounding concentrations, such as the Bay of Plenty, run a risk of being marginally economic as far as beekeeping for honey is concerned.

As an area becomes saturated, the dependence on pollination will increase and orchardists are more likely to buy rather than rent.

Distortions such as this are likely to occur, with the increased need for bees in an area of course causing friction unless some form of licensing is adopted for territories; this is an area of debate it would be wise to stay out of.

But the real crunch comes when or if an artificial pollinator, either mechanical or plant bred, comes along because any beekeeper who has invested in extra hives to fill a legitimate and economically viable need will be left holding the baby.

Perhaps the question should be asked – is there room for another 50 000 or more hives in the North Island. Information I have would indicate that there is not.

The best solution would seem to be that the kiwifruit growers should make a major effort to develop their artificial pollination before any distortions occur, that is before 1985.

In the immediate future it is my opinion that any beekeeper contemplating providing a pollination service for kiwifruit should only do so if he is offered the security of a contract covering a period of 21 years, and based on a rental of the equivalent value of say 40 kg of honey.

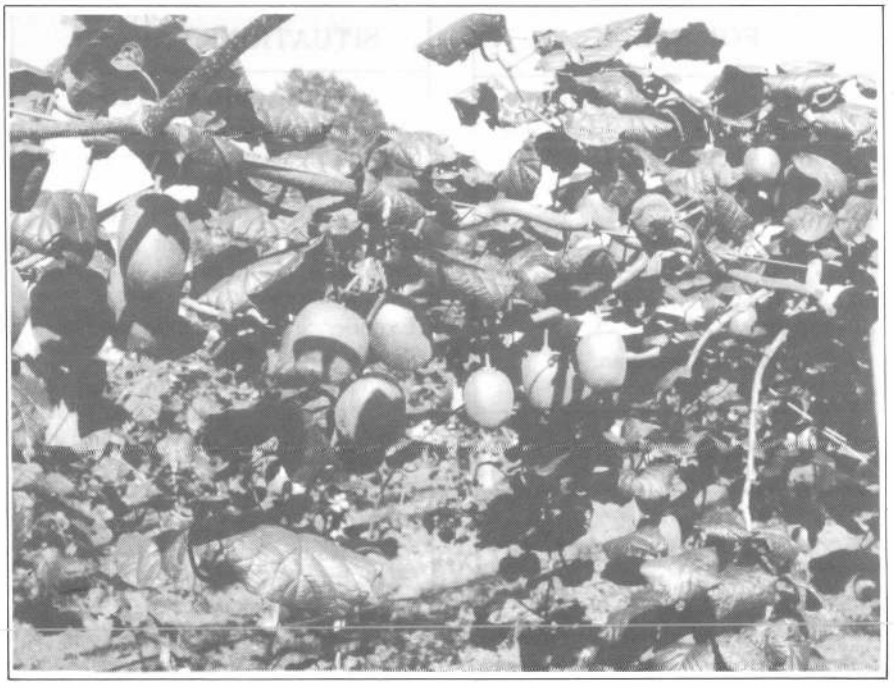
This contract should be worded in such a way that the orchardist must pay for the full term of the contract whether he takes the hives or not: This is no different from a redundancy clause such as is now common in union business.

There would also need to be penal clauses for properly certified spray damage.

It cannot be emphasised too strongly that as the greatest advantage is to the orchardist so too must the risk be his also. The beekeepers must not place themselves in the position of the makers of gas filaments.

A watertight contract for a period of 21 years will go a long way when applying for loan monies and is the likely way any sensible businessman would secure his capital investment before venturing into such a business. Many kiwifruit growers are sound businessmen and will only respect the beekeepers when they take such measures.

When I was president of the association I forecast, in my address, that by the end of this decade many beekeepers would be pollinators rather than gatherers of honey. This forecast is looking more real now than ever before, which gives me no joy. However, whichever way events turn now one thing is almost certain and that is that the next seven years are going to be more difficult than the last seven and they were bad enough.



The mechanics of artificial pollination

Adapted from the Kiwifruit Authority Newsletter

KIWIFRUIT PLANTINGS are continuing to expand in many areas of New Zealand. A recent survey of the number of beehives available for pollination has revealed that there could be a shortfall in hives, beginning in 1985/86 and getting progressively worse. Dr Murray Hopping of Ruakura is developing a system for the artificial pollination of kiwifruit based on spraying pollen onto open flowers. Every effort is being made to finalise a workable system before the shortfall in beehives occurs.

The mechanics of artificial pollination can be considered as three separate aspects – pollen collection, spray preparation and spray application.

Pollen collection

Male vines flower over a two to four week period, depending on clone and season. Flowers begin to shed their pollen as the petals unfold. It is necessary, then, to hand-harvest flowers in the about-to-open stage every day. Pollen is extracted from buds by first milling the flowers to remove the anthers, followed by drying the anthers to release their pollen and then collecting the released pollen.

Pollen storage is possible for at least one year, and optimum storage conditions have been determined. A "pollen bank" could be established to carry unused pollen over from one year to the next.

Spray preparation

Pollen suspended in water loses viability rapidly. An inexpensive formulation has been developed (called CBCA) which protects pollen in suspension. Detailed testing in 1981/82 has shown that pollen suspended in CBCA and applied to flowers, germinates, penetrates and fertilises the ovules of the fruit equally as well as dry pollen applied by hand or by bees. However, experiments from the last two years have shown that:

- The water used in suspension formation must be free of zinc and other metal ions (simple de-ionising of water removes these ions); and that
- Agitation of pollen suspensions by compressed air, rather than by repeated mechanical pumping, prevents pollen damage in sprayer systems. Preparing pollen suspensions and their application in sprayer systems is now a routine matter, and further work is not planned on this aspect.

Spray application

Although spray application would seem initially to be the most simple aspect of the whole project, continuing problems have been experienced under field conditions. In short, insufficient pollen grains are deposited on the fertile (stigma) surface of the flower.

Three hundred or more pollen grains per stigma are needed in order to obtain a 36 tray count fruit, but hydraulic sprayers have so far only achieved about 30 grains. Therefore, nozzle performance has to be improved about 10-fold.

Factors which influence the deposition of pollen on the stigma of the flower are spray pattern and droplet size. In general, spray patterns delivered from swirl jets (but not hollow cones of T-jets) resulted in more than 100 pollen grains per stigma, provided pollen concentrations were 1.0 g pollen per litre CBCA suspension medium and each flower was spot sprayed by hand. Repeated spray pollination throughout flowering (every three days) would deposit sufficient pollen and thus bypass the need for both male vines and beehives. Improvements in the performance of swirl jets are possible and could result in much higher numbers of pollen grains per flower.

However, the aim of this project is to develop spray pollination to the point where one operator can pollinate 7 ha of canopy in an eight-hour day. Spot spraying of flowers, although less wasteful of pollen than the present blanket application by boom spraying, would require six to seven men/women sitting on a tractor-trailer (each with a hand wand) to get through 7 ha of canopy in a day. Even then, the techniques would not be suited to T-bars.

A new approach is being investigated which involves coupling the swirl jet to an electrostatic droplet charging electrode system that would impart an electrical charge to the pollen spray cloud. Theory indicates that charged pollen droplets would be attracted to stigma tip on each flower, thus delivering the necessary 300 pollen grains to each stigma in one application. One operator could then spray pollinate 7 ha per day.

Future research by Mr Hopping will concentrate on this problem of pollen capture with the view of building a sprayer that will spray pollinate flowers on both T-bars and pergolas.

The end-point of this work will be to demonstrate (before 1985) that spray-pollination can produce regular crops of high quality fruit. An area of kiwifruit was planted last winter at the Rukuhia Experimental Area, without males, which will be screened from insects (bees) during flowering. Pollination will be solely by pollen sprays.

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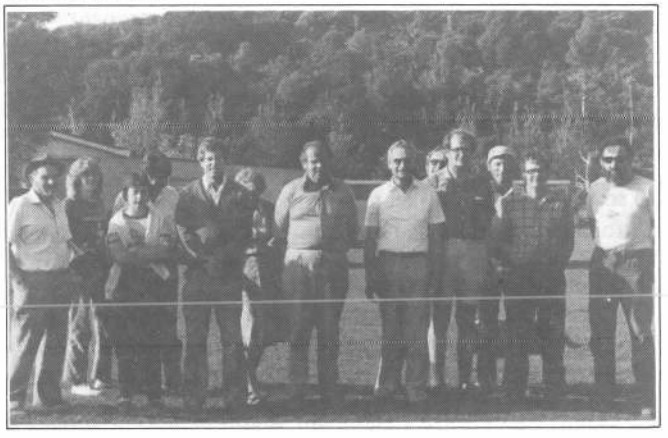
FROM THE COLONIES

AUCKLAND



A successful field day was held at Ben Rawnsley's Manurewa place on November 30. The main topics were raising queen cells and movement of hives into kiwifruit orchards.

With large areas of land being developed into orchards resulting in smaller clover production areas, there is a site problem for beehives, and transport costs.

A. Ellis,
Mt. Wellington.

BAY OF PLENTY

The kiwifruit pollination season is well underway and the stage seems set for bumper fruit crops.

The spring build up was patchy and needed some skills to keep hives progressing. Early feeding was again vital.

Problems of queen supply due to patchy mating weather caused many developing beekeepers some real problems. Hives consequently gained too much early strength and swarming impulse became a major problem during October.

Valued queens introduced at that time also took off as a swarm, possibly because the colony swarm impulse was already initiated about the time of introduction. However, we seem to have battled our way through to have good hive strength at pollination time. Most of us are now working around the clock shifting hives into a one week early pollination season.

Pollination prices remain the same as last year (around $48) due to the price freeze.

Cut comb producers should be doing well off selected early sites where we had exceptional early flows in some areas.

Nucleus colony sales were affected by patchy matings.

Pollen production is way down due to dry windy conditions coinciding with peak flow periods.

The honey producing season is generally set to look good from clover, thistle and late bush sources, but the present near drought conditions will no doubt play an important determining role for these potential crops.

The branch, in conjunction with MAF, had a pollination display at the Te Puke Horticultural Field Days. This display created considerable interest.

The pollination committee met again and just prior to the orchardist/beekeeper annual liaison meeting. Beekeeper representation was well up and orchardist representation was well down. Discussion was wide ranging but perhaps the price freeze and spray problem avoidance took most time. We have total cooperation from both interests. Waikato and Hawkes Bay beekeepers were present.

A branch discussion group held recently focused on pollination hive management and standards for same.

Bruce Stanley,
Whakatane.

POVERTY BAY

This is my first letter to 'The Beekeeper' in my capacity as press officer, and at the time of writing this the weather is improving. Not continuing in the vein of late August, September and October.

Hives, which wintered well, built up magnificently in early August, and gradually went downhill in stores and temper as the wettest September and October for years demoralised large and healthy colonies. A few sheltered sites survived okay but the majority in the Bay haven't. Even the 'silly season' (October and early November) hasn't helped matters.

In one apiary inspected, hives in August and September had 10 frames of brood and advancing. At the last check two were totally devastated, one other nearly kaput and four others on the brink of starvation. All in 21 days.

Poverty Bay (hate that name) has a large problem looming; because of the diversity of horticultural crops, spray programmes nearly always overlap: Kiwifruit flowers no spraying, next door citrus and avocado spray. The result is continuing bee mortality.

Already this season seven hives are dead and destroyed in one business, and others have had hives reduced to nucleus size and some of those will die.

Farmers and beekeepers will have to get together soon or the beekeepers will get 'demoralised' and pollination services will cease. Hives to replace are almost one hundred dollars so that is that. Why! Why! Why! can't these business owners get together and work something out.

Some of the attitudes of some horticulturists are so petty and apathetic as to defy all description; be it on their own heads, when overlapping spray programmes, and total arrogance force all beekeepers off the plains of Poverty Bay.

Instances of American Brood Disease are rearing their ugly heads again and the common practice of pre-extraction inspections go by the way in the name of rapid expansion. Take care.

The Bay is on the boom trail for horticultural growth and beekeeping and I hope this trait of carelessness and some ignorance can be put aside, and the profitability of all ventures go from strength to strength and hope the season shapes up okay.

Bill Whitlock,
Poverty Bay.

SOUTH CANTERBURY

Early spring saw the district in the throes of one of the most severe droughts ever recorded so local beekeepers were apprehensive about the coming season. They could be looking at another disastrous honey crop.

The willows came into catkin in a most unusual manner; some trees flowered as early as September 20, while other trees in the same locality did not break into catkin until early October, and catkins were observed on trees on October 20. Late severe frosts played havoc with the early flowering trees, in some districts little willow honey was gathered but overall most hives did gather a fair amount. This coupled with the warm late spring eased the feeding position to a situation where most beekeepers had an easy feed bill.

Labour weekend really saw the easing of the drought; although rain fell in most parts of South Canterbury, it was north of Timaru where it can now be said prospects for this coming season could be average. However, south of Timaru the rainfall was much less, so it is here where conditions are not yet to the point where prospects can be said to be anything like good. Much more rain is required to soak the subsoil to keep pasture growth moving.

Unfortunately stock had eaten the pasture bare and so what rain has fallen has not allowed the pasture growth to get ahead of the stock requirements.

The local branch members spent a most interesting day out with the Catchment Board officers early in October. They visited places where a variety of trees are being used for river control and shelter belts. Especially interesting is that the South Canterbury Catchment Board is endeavouring, where ever possible, to use trees which will provide pollen and nectar for bees. It is hoped there will be more about this visit in the next issue.

Continued nor-westerly winds contributed to poor mating of queens at the critical period of October but early queens mated well as did most during November. In spite of all the obstacles which seemed to get in the way this spring, hives should be in good condition to gather what honey is available this season. We live in hope.

Harry Cloake,
Timaru.

NELSON

The bliss of the "Sleepy Hollow District" has been much disturbed by the humming and buzzing of bench saws and thicknessers, also the cracking and hissing of staple guns.

Many of our non-hibernating fraternity have been diligently planning their multiplying tactics. In some sheds one can witness the NZ version of the leaning tower of Pisa taking shape as sky scraping stacks of gear accumulate. Standard lifts are shamefully tucked away, now that three-quarters is in vogue.

Ah! but hold on, spring came in August; summer in September; and winter is now upon us with snow, hail and bone chilling winds. So here we are huddling around fires of shavings, trimmings and knotty offcuts.

Thanks to Andrew Matheson's infestation of up-and-coming beekeepers, it's debatable whether the upsurge is aimed at bees or keepers. We've had our burning at the pit! Who knows we might yet be burning at the stake! It has been said that there are diseases of beekeepers.

The West Coast branch kindly invited us to their field day. For some, it arrived at short notice and sadly our presence there was scanty. A great opportunity missed!

However, on the next occasion for a gathering, this time at Mr Gavin White's queen-rearing establishment at Takaka, the alarm clocks were set at "go" and a healthy crowd of note-taking enthusiasts materialised. Many of the ins and some of the outs were openly disclosed to a heavily clad audience. A hot brew, creamed scones and the odd sting

made it a most enjoyable day. One up to Gavin and his better-half for hospitality.

Late press – stand by. Summer 1982 must come, and "It's got to be good for you" we hope.

F. Galea,
Hope.

WAIKATO

The hives came through the very cold dry winter in good order with few feed problems. Willow areas produced well and good weather allowed beekeepers to be well forward with their spring work. The first spring I can remember where you could work hives in your carpet slippers (almost).

October brought a weather change to cold south west gale force winds which are still with us, but very little rain.

Barberry flowered well but the wind blew the flowers off in a few days. Buttercup is flowering at the moment but the wind is causing high bee losses in the field.

I believe Rewa Rewa produced little this year but the Tawari has good budding.

A lot of pastures in the Waikato are carrying rank growth but large areas are presently being cut for silage and hay and when these areas recover and stock clear rank growth, prospects will improve.

Taupo-Rotorua areas are in excellent order and good crops are anticipated. When the winds drop and we get some rain, I would predict a very good year indeed.

Best wishes to all for a good crop and Merry Xmas and a prosperous New Year.

Ray Robinson,
Waihou.

SOUTH WESTERN DISTRICTS

Bees and kiwifruit shared the headlines at a field day in Wanganui organised by this branch in August.

Pat Clinch – Wallaceville scientist – reviewed his recent years' research into pollination problems. He reminded the 50 orchardists and apiarists who attended that kiwifruit has no nectar, and very dry pollen. Hives need to be introduced at 10 to 15 per cent flowering so that competitive and more attractive sources of food do not divert the bees.

Saturation of hives (eight/ha) is needed to ensure a crop where 90 per cent of the fruit would be of export quality.

For this pollination fee the beekeeper faces some losses – the possibility of losing a queen and bees on shifting, loss of production, and costs of shifting.

Around Wanganui alone, 250 ha are planted or planned for kiwifruit. Beekeepers from New Plymouth to Levin are watching this horticultural development with interest and planning their own expansion accordingly.

Taranaki apiarists are expecting (and hoping) for a better year with a stronger hive build up this spring.

Supplementary feeding has been started through all districts with heaviest feeding necessary in the higher inland areas like Taihape. The swarming urge has been a particular problem in Taihape even with young queens in single boxes. A constant check to prevent swarming has been necessary in other areas as well.

Wanganui, Manawatu and Foxton have experienced a haphazard willow flow in September, some apiaries getting the best for years, others missing out. A similar puzzle in the Wairarapa – an ideal spring but no willow flow.

Since then the coastal districts New Plymouth to Wellington have experienced a better than average build up, some apiaries getting enough for self sufficiency, others requiring heavy supplementation.

Our main concern now is how long the harvest season will last. We are so far behind with rainfall, that ground reserves may not last the distance.

John Brandon,
Wanganui.

OTAGO

First evening of daylight saving. Time is getting on and in another six or seven weeks the bees round here will hopefully get the right conditions to gather the next crop. An improvement on the previous couple of very mediocre returns is much needed.

Early spring has been good to us. After opening up well after the dry winter we had a lot of fine weather. This assisted in getting that first round over quickly and without difficulties. Where situated near enough to willows, hives gathered a fair amount. It all helps.

Then Labour Weekend arrived with 5½ inches of rain in four days in coastal Otago, and with snow and very cold conditions further inland. A bit too much moisture all at once. Still it probably will be for the better.

Our spring field day was held in early October. Hosts were Mrs and Brian Marsh at Ettrick (near Roxburgh). They put themselves out no end to make us welcome. Many thanks! Brian combines beekeeping with fruit growing as did his father before him.

A good number of people attended the meeting and an interesting programme was offered. Speakers covered topics such as horticulture and bees, selection of hives for queen breeding, preparation of honey for shows etc. Practical demonstrations added to the interest.

The following is a programme of events of the Otago Branch for 1983 compiled by John Foote.

Friday, March 4 – Annual General Meeting – held in the Green Island Plunket Rooms at 8 p.m.

Friday, May 6 – General Meeting – held in Green Island Plunket Rooms at 8 p.m.

Tuesday, June 7 – Otago-Southland Convention – held in the Federated Farmers Board Room at 2 p.m.

Friday, July 1 – General Meeting – held in Green Island Plunket Rooms at 8 p.m.

Friday, September 2 – General Meeting – held in Green Island Plunket Rooms at 8 p.m.

Saturday, October 8 – Annual Field Day. Expected to be held at Middlemarch at 10 a.m.

Friday, December 2 – General and Social Meeting. To be held in Green Island Plunket Rooms at 8 p.m.

John Heineman,
Milton.

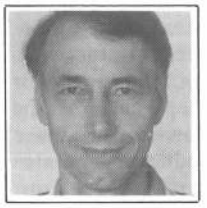
WEIRD AND WONDERFUL

A member of London's Philharmonia, one of the world's top orchestras, keeps a couple of colonies. Where? In the attic right on top of the Royal Albert Hall, in the very heart of the great city. And he does get a reasonable crop of honey as a rule – that is by UK standards. There must be some good nectar sources in Hyde and St. James Parks!

John was a Picton hobbyist. Shortly after he established his first hives in the backyard he decided some work had to be done. When his wife arrived home he was busy with his bees alright. She saw him beside an opened hive attired in his wet suit. That's what we call protective clothing. She did not say if he was wearing his flippers.

Our new neighbours on the next-door farmlet lack all experience as far as farming is concerned. All the same, a few sheep arrived in the paddock, then a couple of calves and lately a lovely Jersey cow. The cow gave birth and the the fun started. A cow has got to be milked and that art had to be learned. A few weeks with moans about cramped hands and very sore arms and all the time it takes. However, the operation has now speeded up. The other day he was sitting on one side of the patient beast and she on the other side with the bucket in between. Pulling and squeezing in unison. What a lovely joint venture.

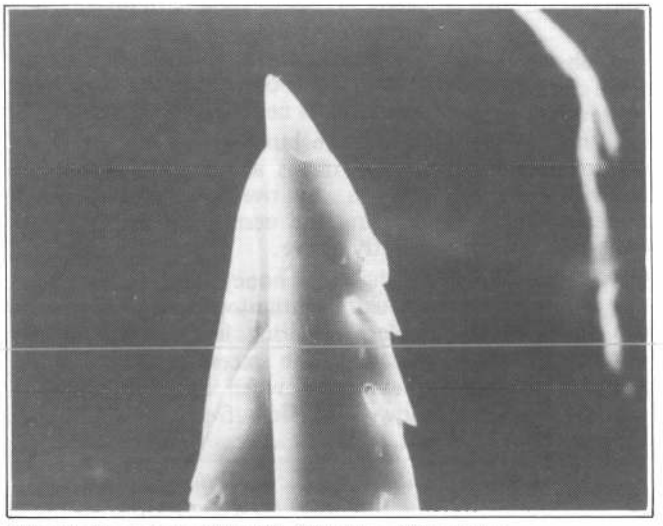
John Heineman.



by David Williams, Rotorua,

I hope amateurs and hobbyists and beginners won't mind a gentle ramble through some of the notes I jotted down since the last issue. That at least will get them out of the way for a while. First —

Stings, myth and remedy



What's the point of it all? The tip of the sting.

I HAD A LOOK at stings a few issues ago but, intrigued by a remembered comment from my dear old grandmother that the remedy for stings in her youth was a handful of mud slapped on the place (which sounds a bit messy, considering some of the places we beekeepers are stung in), I did a quick glimpse through a few notes made recently.

Amazing the number of non-beekeepers who tell me "Of course I can't go near bees. I'm allergic to them. When they sting me I swell up terrible." To which I reply "So do normal people" or some such put-downer.

Of course they swell up! That's what the sting is for, to dissuade great, clumping humans and other nuisances from anti-social acts. People don't talk of an allergy when they read of someone dying of cobra bite, yet death from that is as normal a reaction as swelling is to a bee sting.

Stings

"A quaint old New England belief was that if you held your breath, the pores would be closed so that a bee or wasp could not get his sting in and, after several vain attempts, would finally go away disgusted." **Berger Evans' "Natural History of Nonsense".**

"The venom owes its efficacy to the presence of some highly poisonous albuminous alkaloid toxin, and it will be seen therefore, that the use of alkalies, such as soda or ammonia to neutralise the poison has but little justification. Experience shows that other antidotes are more effective, and amongst these may be mentioned tincture of iodine and tincture of aloes. On the other hand, some doctors say that the venom spreads so quickly that the alleged remedies have but little value save in satisfying the believer." **Wedmore's "Manual of Beekeeping".**

"Various things are advocated as treatment. Iodine, ammonia, onion juice, tobacco, and several propriety medicines, rarely do more than allay irritation, and a little honey smeared on is just as effective." **Mace's "Complete Handbook of Beekeeping".**

"Wasp stings or similar – keep some Wasp-Eeze about. It neutralises the sting at once and prevents swelling and pain. In general, ooze confidence and sympathy." **Rushton's "Super Pig".**

"Bee stings? Don't get sore. Just a pat of honey hits the spot and not only heals it (repeat at hourly intervals) but draws out the pain as well." **American Bee Journal, November 1979.**

"For wasp stings a dab of vinegar is very effective, and bee stings can be eased with a dilute solution of ammonia or just by rubbing with a moist cake of soap." **The Book of Practical Household Formulas.**

"Stings and Bites – if it is a wasp sting dab the skin with vinegar or rub it with a raw onion; if it is a bee sting, dab the skin with weak ammonia or methylated spirits." **New Zealand Scouts Handbook.**

"Stings and bites – bees, hornets and wasps: Remove the sting, if present, using forceps or tweezers or the point of a needle which has been sterilised by passing it through a flame and then cooling it. Antihistamine creams are useful if applied immediately. Otherwise, apply surgical spirit or a weak ammonia solution or a solution of sodium bicarbonate. If the sting is in the mouth, give a mouthwash of one teaspoonful in a tumbler of water. If there is much swelling in the mouth or there is difficulty in breathing, place the casualty in the recovery position and give ice to suck. Seek medical attention immediately." **First Aid Manual (Red Cross and St. John Ambulance).**

And finally, from Spike May's delightful recollections of rural life in the England of the early years of this century: "Between the kennels and the rookery half an acre of the garden bristled with blackcurrant bushes and Freeman's beehives. In desperation I thrust my head deep into a currant bush, seized branches with both hands and shook them furiously round my head. The bees flew off, leaving a few stings on my face and currant leaves on my shirt. I rubbed a currant leaf on my hottest sting. The pain stopped. I rubbed it on other stings with the same results, and hurried off to tell Freeman . . . "

So there you are. The best way is still to avoid the sting in the first place!

As for the lunatic fringe, as one Australian said to me recently – "If bee sting therapy works, I should live to be a thousand" – and he probably will. I also liked the other comment made as we passed beehives piled six supers high – "He's a liar, whoever he is . . . "A custom known as 'top-dressing' in the trade, so I am told, this one of storing spare supers on hives and hoping some innocent will believe them full of honey.

And talking of health foods, I liked the comment of the doctor who, asked about a patient who had taken up an "organic" diet, said – "She enjoyed being ill. Now she's happily making herself into a compost heap".

Or Norm Clifton's comment on a commune – "There they all were, a bunch of weirdies in organic clothes . . ." Which exactly describes them.

Ventilation in the hive

by F. Galea.

THE BASIC needs for man's survival are food, clothing and shelter. For bees it is simply food and shelter.

Surely one of the most satisfying visits to the apiary is the spring check, when the beekeeper finds all his stocks alive, healthy and in good fettle. Closer inspection shows that each colony has ample food, honey and pollen, surrounding the expanding brood area.

The clustering colony breathes, therefore it needs fresh air and a ventilating system that allows for a free dispersal of harmful gases.

The cluster also gives off warmth and moisture, which, if not allowed to disperse, causes condensation. This collects on the crownboard and drips onto the combs.

Those frames furthest from the cluster suffer most from the effects of condensation and those well stocked frames of precious pollen normally found close to the hive wall are therefore very vulnerable to the effects of condensation.

Ventilation requires a system of openings which allows a flow of air. Assuming that the hive entrance is nearest the floor the natural flow of air would be upwards and out through the roof.

A crownboard is the first obstruction to a ventilating system. By cutting out ¾" diameter holes, six or seven at each end of the crownboard, this can be remedied. When looking down at the hive these holes coincide with the end of the frames. By this means ventilation takes place around the edge of the cluster carrying moisture up and out of the brood chamber.

Experience has shown that roof ventilators need gauze screening inside and out to prevent beggar bees making contact. These visitors can easily exchange a gift of food for disease.

The roof can be the next obstruction, especially if it is in direct contact with the crownboard. A roof three to four inches deep can be kept clear of the crownboard. This allows an air space that acts as a non conductor, and also provides ample room to cut out ventilators a half inch deep, four to five inches long.

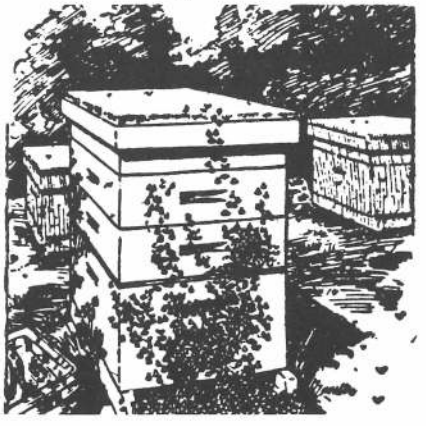
The ventilated crownboard provides handy access to food without interfering with the brood area. An empty box placed above it can hold a frame or two of food which the bees take down as it is needed.

During the build-up period, a box of empty frames above the crownboard acts as an overflow area without exposing the nest to an empty space directly above.

During the honey gathering season through ventilation keeps the hive cooler, requiring less fanning at the entrance. The excess moisture which is extracted when ripening honey is allowed to flow freely upwards and out.

Readers' queries

Mail your questions to: 'A Fresh Start", 26 Otonga Road, Rotorua. They will be answered by Mr Williams personally and suitable ones submitted for publication.



TREATED WOODWARE

Dear Mr Williams,

I am confused! Having learned from traditional (and aged) beekeepers that the **inside** of beehives are to be left untreated in any way, I now see and hear of different products that are intended for use on bee equipment: Woodlife II, paraffin dips, and treated equipment offered by equipment manufacturers.

Are these products for the use on the inside of hives, on frames or still merely the outside? I wonder if you can direct me to any relevant literature aimed at shedding some light.

Yours,
K. Plummer.

Your enquiry on the safety, or otherwise, of using preservative treated wood for, or of applying preservative to, hives or hive parts, has been passed to me for reply.

The simple answer to your query is that the preservative solutions used for commercial treatment of timber were usually Boliden (zinc, copper, chrome, arsenate) or Tanalith (fluor, chrome, arsenate plus dinitrophenol or copper chrome arsenate) and, although the formulations have changed over the years, the arsenic has remained constant – as has the copper, which gives the timber so treated its green colour.

If beehives were made from timber treated with these salts the bees picked up arsenic from the board surface with their feet. The arsenic inevitably contaminated the nectar as the bees walked around the combs and the colony eventually became weak and even died out. The standard New Zealand reference on this is the article "Danger of using arsenic-treated timber for beehives" by Harrison, Palmer-Jones and Nairn in the Journal of Agriculture for 15th April 1959 (Vol. 98, p338).

For non-beehive use this process had many advantages. It consisted of pushing the preservative back into dry timber at high pressure in a treatment cylinder and so impregnating the wood with a specific retention of chemical, the retention level depending on the proposed end use. If you are fortunate enough to live within reach of a preservation plant using the newer AACs (alkyl ammonium compounds) instead of Tanalith, timber treated with AAC is safe for beehives.

When we come to the hobbyist and to home application of preservatives, Woodlife II is as suitable as any and more suitable than most. It is a troysan polyphase and not only preserves the timber but also has water-repellent properties. The drier the timber, the less chance of fungal infection. The concentrate also has the advantage of being diluted with water. Metalex, another well known one, is copper naphthenate, also safe to use with bees, but uses kerosine or turps as a dilutent and carrier.

These, and others, have no detrimental effect on the health or longevity of the colony. They are usually applied by brush, spray or, more rarely, soaking which generally give a surface protection rather than the total protection given by pressure treatment but can prolong the life of boxes almost indefinitely if the treatment is repeated every two to three years. Few beekeepers preserve frames, although there is no reason why this should not be done, particularly the end lugs.

I hope this answers your major points but if there is any further information I can supply, please do not hesitate to write.

Sincerely,
David Williams.

Water-jacketed cappings reducer

by Murray Reid, apicultural advisory officer, MAF, Hamilton.

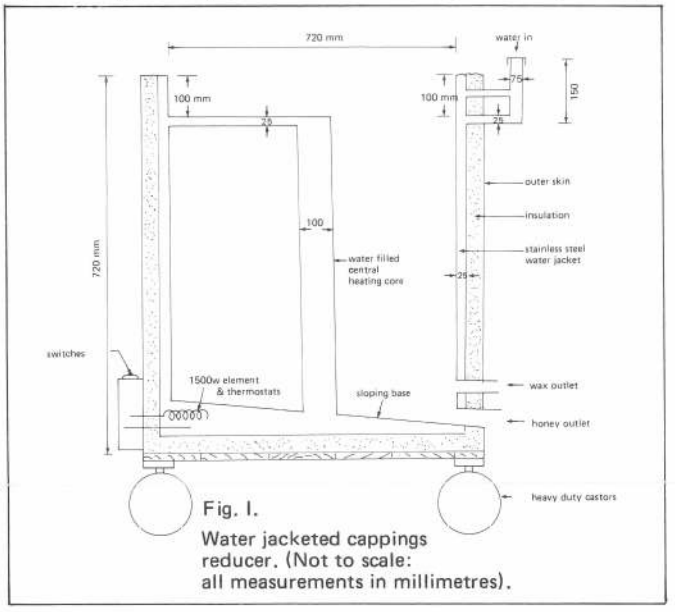


Fig. I.
Water jacketed cappings reducer. (Not to scale: all measurements in millimetres).

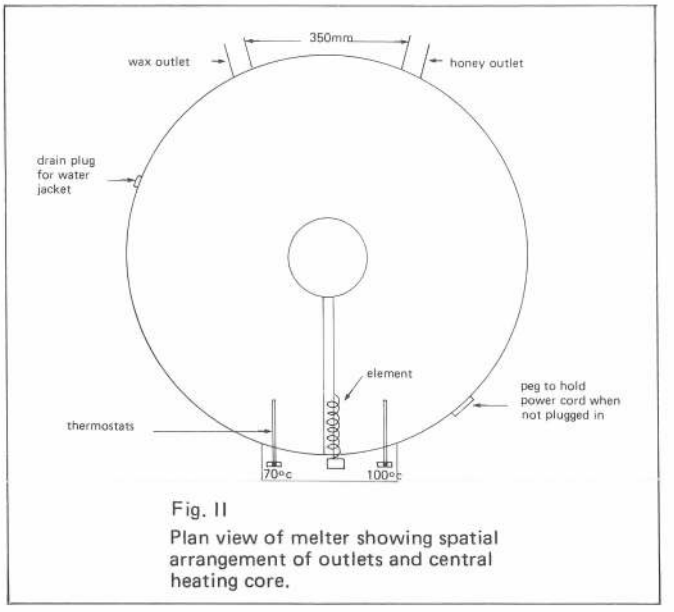


Fig. II
Plan view of melter showing spatial arrangement of outlets and central heating core.

THEY SAY all good things come to those that wait. Well, I've been waiting and nudging Norm Finlay, a Waikato beekeeper, for two to three years now to build a water-jacketed cappings reducer, and now he's done it! Norm was using an old oven reducer heated by pyrotenax cables that came with the honey house he leases.

This type of unit is still common in the Waikato and elsewhere in New Zealand, but the sooner they are replaced the better. They are expensive to run, they darken and burn almost all the honey in the cappings, they have a limited capacity, and worst of all, they are a significant fire risk.

Ray Robinson, at Waihou, started the ball rolling by building a melter, using hot water, that 'really works'. Norm's model incorporates several improvements on Ray's unit and no doubt other beekeepers will think up improvements to this one too.

The reducer was designed to melt cappings from a spinner (described in NZ Beekeeper September 1981 : 16-18) but could also be used to melt the wax 'shavings' from a Cook and Beale centrifuge. It would probably pay to add water to the wax in this case to catch the dross which settles out of the molten wax. There's no honey to salvage from the wax that comes out of these centrifuges.

The main advantages of hot water heating are:

- No fire risk;
- Gentle even heating that can be easily controlled.

The main disadvantage is a direct corollary of the above. It takes a long time for the heat from the water-jacket to penetrate the centre of the wax and honey even with occasional stirring.

The Finlay model incorporates a central heating core to help distribute the heat throughout the cappings.

If you study the dimensions given in Figures I, II and III you will get an idea of how the melter was built. The size is not critical but was designed this way with several thoughts in mind:

- Both skins of the water-jacket could be cut from one sheet of stainless steel. A circular design used much less material than a square box and took up less floor space.
- The unit needed to be on castors to wheel it out of the way when not in use. It could also be wheeled up close to the spinner for easy filling.
- The castors elevated the melter off the floor to get the wax molds under the drain tap.
- If you increase the diameter, to increase the capacity of the unit, then heat transfer through the middle of the cappings will be more difficult. If you increase the height then loading cappings into the unit could be more of a chore.

There are several other features to note:

- The level of the 25 mm diameter heating tube connecting the water-jacket to the central core, must exit at the same height as the bottom outlet to the water filler.
- The water filler, or inlet, needs a top exit pipe as well to allow heated air and steam to escape without boiling the water up and out of the filler pipe.
- The bottom must be self-draining and a slope of 100 mm (element end) to the lower drain tap is suggested.
- Two drain taps are necessary. Ray Robinson's melter only had one tap. Norm's model has two taps 225 mm apart but this gap is too much. The taps need to be about 150 mm apart. The taps must also be of the guillotine honey gate type rather than the treacle type as wax blocks up the taps and you need to be able to get into them with a piece of wire.
- There is one 1500 W heating element with two thermostat probes on either side of the element. The thermostats have two change over switches mounted on the top of the protective box. One switch is set to 70 degrees C, the other at 100 degrees C, so it is a simple matter to turn the unit from high to low or vice versa.

Ray Robinson's model only had one thermostat which had to be adjusted by regulating the small control on the thermostat itself. This was a hands and knees and screwdriver job! Ray also mounted a female three pin plug on his oven as an extension cord was needed to connect the power to his unit. However, this meant there were no cords dragging around when the melter was moved about the honey house. ▷

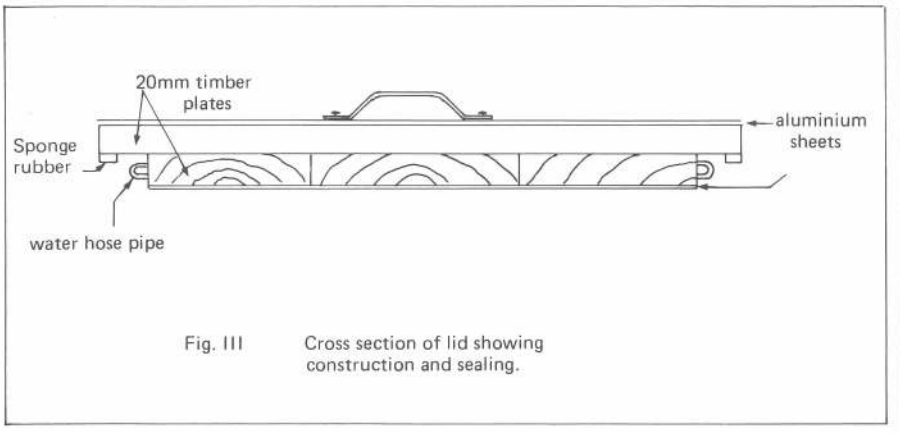


Fig. III Cross section of lid showing construction and sealing.

▷ Norm is still learning to 'drive' his melter but a typical melt out operation would go something like this:

Fill melter; it will hold cappings from about 120 full-depth supers and turn the switch on low (i.e. 70 degrees C) and leave overnight.

In the morning open the bottom tap and drain off the honey until some yellow/brown sludge apppears. This sludge, which consists of pollen, propolis and other dross, lies on top of the honey and underneath the wax.

There will still be a large core of soft but solid honey and wax in the middle of the melter. This should be broken up with a stirrer. More cappings can be added at this stage or the unit can be left on low until about lunch time with occasional stirring.

The rest of the honey can be run off now and the unit switched on to high, i.e. 100 degrees C. Norm collects about 30 to 40 kg of honey from this initial run-off which will be darkened but not burnt.

Another three hours or so will be needed to complete the melt out. Again the honey is run off first but it will be slightly burnt. There is usually 5 to 8 kg of this darker honey, which is kept separate from the rest of the honey crop.

The wax can now be run out of the top tap into molds. This will need some straining to catch surface debris such as bees, pieces of wood, slum gum etc.

The sludge layer will now be between the two taps. Some wax will also be on top. Norm collects about 47 to 50 kg of wax into his molds from a single fill of cappings.

Three to four buckets of hot water are added at this stage, the power switched off, and the wax/sludge layer left to set. If your taps were about 150 mm apart then two to three buckets of water should suffice.

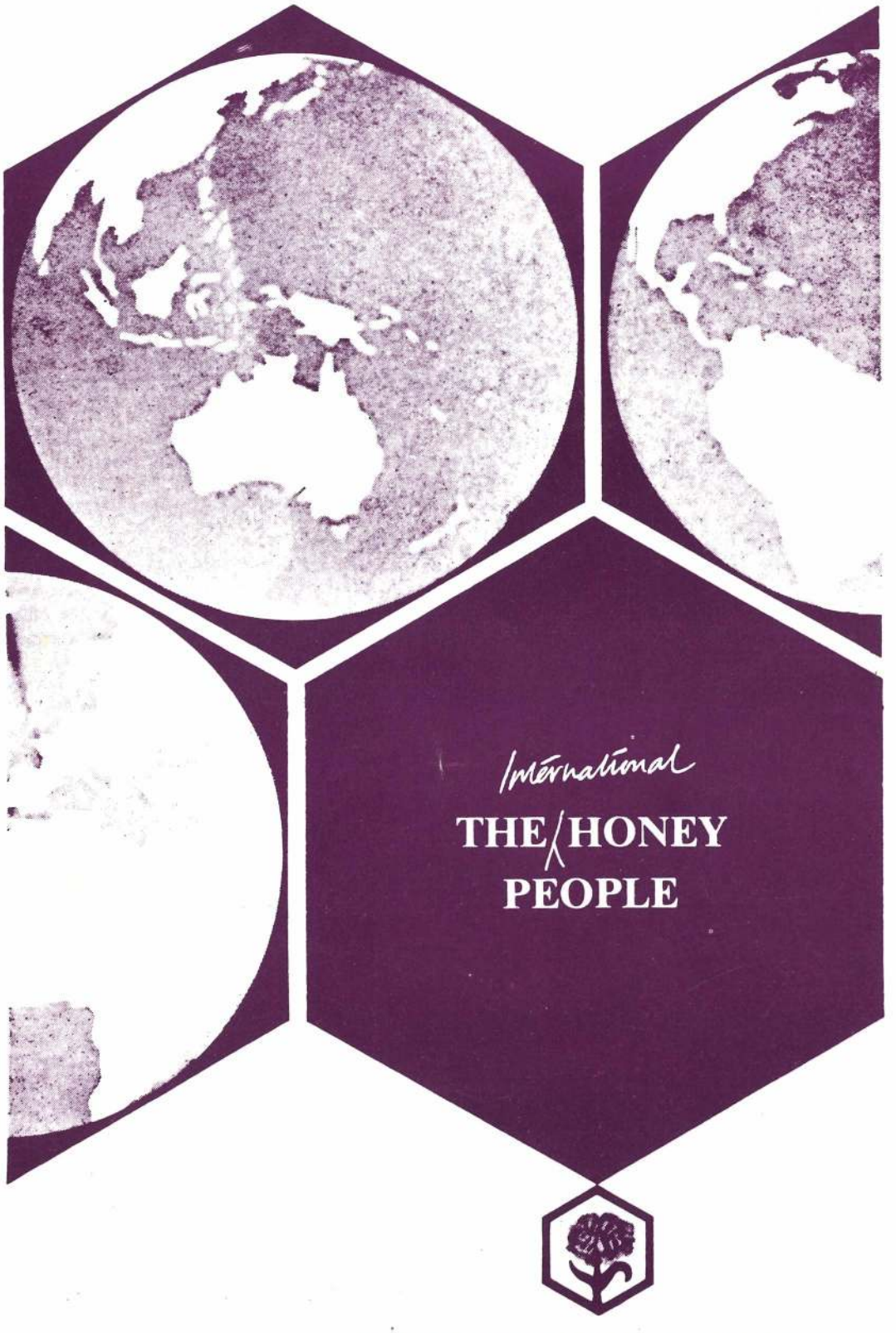
Next morning (or whenever) the water is drained out and the 15 to 25 mm thick layer of wax and sludge is broken up and lifted out. The sludge is scraped off the wax and thrown away while the wax is kept for further processing in a steam chamber.

It is possible to refill the unit without emptying out the sludge but the sludge layer quickly builds up and it is difficult to run clean honey and wax if there is too much present.

And, as always, you'll want to know how much the melter cost. Well, Norm is not jokingly called 'MacFinlay' for nothing! The stainless steel work cost $480 and the electrical work $30. The latter was mates rates of course.

Norm had the rest of the materials 'on hand' such as the insulation, aluminium outer sheeting, heavy duty castors, taps and timber.

If you had to buy all these things you could expect to pay $800 to . . . ?



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