1993

SUMMER
(NOVEMBER)

The New Zealand BeeKeeper

The New Zealand BeeKeeper

OFFICIAL PUBLICATION OF THE NATIONAL BEEKEEPERS' ASSOCIATION OF NEW ZEALAND INCORPORATED

CIRCULATION, 1,550...

To Members of The National Beekeepers' Association of NZ Inc. who own more than 50 hives each and so are legally subject to the annual hive levy. **THESE HIVE-LEVY PAYERS OWN APPROXIMATELY 87% OF ALL BEEHIVES IN NEW ZEALAND.**

To Beekeepers with less than 50 hives who subscribe to the journal at $33.75 a year (incl. GST) which also includes membership of the National Beekeepers' Association of NZ Inc.

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NEW ZEALAND BEEKEEPER TO TAKE NEW FORMAT

EXECUTIVE DECISION

On the 5th October 1993 the Executive met to make decisions on the future of the secretaryship of the NBA, review the 1994 budget, and to set the levy for the 1994 year.

The Executive was opposed to any further increase in the hive levy above the $1.61 per hive plus GST we are paying now. We are unsure of what the costs will be for the new secretarial services which have to be arranged from the end of this year.

The major concern was the approximate halving during the last year of the reserves of the NBA itself. Our reserves are expected to be $45,000 by December 1993, down from $90,000. This is very serious and calls for immediate action to reduce costs wherever possible.

It was with these facts in mind that we decided that some of the costs within the industry needed to be addressed including the honey marketing levy (last meeting). At the 5th October meeting it was decided that the Buzzwords would become The New Zealand Beekeeper and that the New Zealand Beekeeper as it is produced at the moment be discontinued. We are hoping that the new eleven times a year Beekeeper will be enlarged to include some of the items that are included in the present Beekeeper. Your Executive is hoping to save $20,000 by this move.

The Executive is disappointed to have to take this form of action but feels the need to keep costs within its income and that the reserves could not be eroded any further. This situation has been brought about partially by the large number of beekeepers who have either understated their hive numbers or are refusing to pay their levies. These people are being actively pursued by your Executive, but we need your assistance to put pressure on those who haven't paid.

This new format of The New Zealand Beekeeper may take a little while to develop to its full potential. We are very optimistic that we will have a journal which is of an even greater source of information and more enjoyable to read than the current Beekeeper and Buzzwords.

Graham Cammell
for Executive

A QUESTION OF COST

by Allen McCaw

I have little doubt there will be a number of very surprised readers of this magazine who have just learned that this is likely to be the last edition of the 'NZ Beekeeper' they will be receiving. Certainly, for anyone other than a member of the NBA of New Zealand this will probably be the case.

Draconian decision

In an arbitrary and somewhat Draconian decision taken at a special meeting of the NBA Executive in October, the 'NZ Beekeeper' as an official publication of the Association was unceremoniously axed. And so ends 54 years of beekeeping industry tradition, terminated in the interest of "cost saving" to help remedy a projected budget deficit for the NBA in 1994.

But let us try to be fair about the situation. Executive is charged with the responsibility of administering the finances of the NBA. Undeniably they appear to have a problem at present in making the books balance, and in view of the pledges of the three newly-elected members, to 'reduce costs' to the Association, they have taken actions they believe will achieve this.

Along with a 15 cent reduction in the 1994 levy for marketing. Executive has identified industry publications as one area of potential cost saving.

We are told that the 'Beekeeper' has been running at a loss over recent years. This is defined as the difference between subscriptions and advertising income, and the expenses of publishing and distribution. Upon further enquiry it appears this difference is expected to be a maximum of around $13,000 for the current year.

In other words, this is the amount which has to be taken from Hive Levy income to supplement the cost of our beekeeping journal. With about 550 levy payers in the NBA, this represents a maximum annual fee, or subscription to the Beekeeper of about $23.50 each - quite favourable when compared with the annual subscription of $33 paid by the ordinary members.

Figures of this kind have been presented to NBA Conferences on numerous occasions over the past few years when remits have been debated which suggest we might either scrap the magazine, or amalgamate it with Buzzwords. In almost every instance these have been rejected unanimously by the voting of NBA members through their branches.

This suggests strongly that the costs are accepted by the membership as legitimate and supportable - or put into economic analysis terms - the benefits are seen to outweigh the extra costs. Although not in evidence yet, it is to be hoped that in reaching their decision to cease publication of the "NZ Beekeeper" Executive members did not confine their deliberation to monetary costs alone.

Suggests strongly that costs are accepted by membership

I would personally like to think that the most careful consideration has been given to the potential future losses to our Association of not continuing to publish and circulate our journal. An examination of some of these will highlight the serious implications of this decision.

Firstly, the loss of membership, present and future. While Hive Levy payers and Life Members receive the Beekeeper by right, there are a substantial number of members who join the Association through a journal subscription. Clearly these members see a value in receiving the magazine each quarter, and it can be expected that many will no longer wish to sustain their membership without it as an incentive. This significantly reduces the sphere of influence our Association has through the ability to communciate with a wider range of beekeepers.

It is undeniable also that a fair proportion of future commercial beekeepers come from the ranks of hobbyists and part-timers, many of whom express and maintain their interest in the industry through subscription to the Beekeeper. It is vital that this interest and sense of belonging is maintained for the future well-being and balance of our Association and our industry.

Major loss

A second major loss is in the provision of advertising and sponsorship revenue and support. Suppliers of products and services to the industry have looked to the NZ Beekeeper as an important and respected means of customer contact.

In particular, queen bee producers will be at a loss to find a more effective means of advertising their services. I seriously doubt that a supplier of products will be sympathetic to requests for sponsorship of Branch activities and Conference costs without the availability of continued advertising facilities at other times of the year.

Important link in dissemination of major research

Thirdly, the NZ Beekeeper represents a very important link in the dissemination of major research developments to the industry not only from this country, but overseas as well. It is certain that one of the important aspects in the publication of research information is the avenue through which it is presented. To this end, the Beekeeper has gained a world- wide respect for the quality of research presentations for NZ bee researchers - a position which we ignore or diminish at our peril.

Overseas readers include Government officials, trade posts, and researchers, many of whom can have an influence upon our access to markets and promotion of our products in foreign locations. Such incidential promotion cannot be otherwise obtained except at great cost, and international competition demands a high standard of presentation of material.

Education and information transfers are a fourth potential loss area through cessation of the Beekeeper. The exchange of information through reciprocal arrangements with overseas journals is an invaluable asset to our NBA library. This data is then freely available to all NBA members and others through the library's loan service.

In depth articles

The Beekeeper provides a venue for more in-depth articles and information to beekeepers which can be filed for future reference. This facility is of critical importance to the future success of both the NBA Marketing Committee and the Post-management Strategy Committee for the eradication of AFB. These two groups now face possible additional expenses in communicating with beekeepers as their respective strategies are developed.

Executive also have a growing need for communcation with all sectors of the beekeeping industry, particularly with legislative changes before us, which are affecting our Association's funding and the regulatory controls under which we operate as beekeepers.

There are other areas where the NZ Beekeeper provides a valuable service to beekeepers in this country, some of which are quite subtle and difficult to define. I trust that the comments provided here may help raise the awareness of the true cost and benefits to our industry of our "flagship" publication - the 'New Zealand Beekeeper'.

An expression of support from as many of the readers as possible may help influence the Executive to reconsider their decision in this matter. One final appeal - please record your protest at the suggestion that the Buzzwords newsletter be renamed as the NZ Beekeeper. This would truly be adding insult to injury and denigrate the past efforts of editors and contributors in raising the quality of the NZ Beekeeper to the respected and valued publication it has become over the past 54 years.

The Editor regrets that because this is the last issue, and because pre-set copy had to be used there was no room for the 'Notes from the Colonies' section.

LETTERS

Dear Sir,

A decision to discontinue the NZ Beekeeper magazine has been made by ignoring the wishes of the industry and through an inaccurate and incomplete analysis of the consequences.

In 1988 a remit asked that the NZ Beekeeper be replaced with a monthly broadsheet or newspaper-type publication. It was at this time that Executive told conference of the decision to publish Buzzwords, a monthly newsletter, in addition to the NZ Beekeeper. The remit was defeated - the industry did not want just a monthly publication similar to Straight Furrow.

In 1989 a remit asked to combine the NZ Beekeeper and Buzzwords as a cost savings measure. It was defeated 2-13. The industry do not want a combined magazine/newsletter arrangement.

In 1991, a remit suggested scrapping the NZ Beekeeper and making Buzzwords quarterly rather than monthly. Branches voted unanimously against the remit.

In 1993, a remit (in the notes) suggested that the NZ Beekeeper was too expensive and not of great interest to most of the industry. The remit indicated the NZ Beekeeper should be made to completely pay for itself. Once more, Conference voted against the remit.

So how has the current National Executive taken these expressions of the industry's wishes? They vote to do away with the NZ Beekeeper and try to expand Buzzwords to try to fill the gap! Incredible!

Buzzwords was never intended to replace the NZ Beekeeper magazine. The two are entirely different publications - in format, layout, content and style.

Combining a newsletter and a magazine and thinking that you'll end up with something better than both is simply not realistic. Buzzwords provides short, timely stories in the form of news and features. The NZ Beekeeper is suited to longer stories, including research, scientific and technical material and such things as the reports presented to conference.

Our industry's publications can and should be improved. This could take place through analysis of content, direction to the editor and involvement by the industry and the Executive. Rather than take on the task of improvement, the Executive has chosen to 'slash and burn'. It is a poorly made bad decision that will work to the detriment of our organisation and New Zealand beekeeping.

Nick Wallingford

Dear Sir,

The news that the NZ Beekeeper would cease to be published in the near future as one of the cost saving measures decided upon by our Executive was given to us at the recently held Otago fieldday. It certainly came as a shock and has taken some time to digest and to realize its implication.

As NBA librarian I must strongly object to this as, in my opinion, it is a very negative and retrograde action.

The library, from a small beginning, has grown ito a valuable collection of books, research articles, some audio visual material, and complete volumes of national and overseas magazines. In short a worth-while asset which to our industry is an instrument in improving information and education for which we aim, at least judging by the spirit prevailing at our last annual conference.

If the NZ Beekeeper were to be terminated that supply of overseas magazines will promptly dry up for it is a matter of exchange. No NZ Beekeeper - no Gleanings, Australian Beekeeper, American Bee Journal, Speedy Bee, Bee Craft etc. etc. The library does not and will not generate adequate funds to take out subscriptions on these periodicals. Not only will these magazines stop to arrive but we will also miss out on review copies of books, overseas research papers and other info coming our way from time to time for the Beekeeper has been the sign post pointing to New Zealand as a worth while target. It all has certainly added much to the library's contents.

Having a decent journal on the international scene is a bit like an ambassador's job. One often wonders about its value but who is to say what is actually means in terms of goodwill created and subsequent benefits to trade etc.

As to the home front; no. 1 of volume 1 saw the light in January 1939 after a period of being without an official NBA organ or by having it incorporated with a publication from another industry. Both these situations were proved to be unsatisfactory. Our journal has been printed ever since and has been a source of information for industry members, a vehicle to makes one's views known, a forum for both NZ and overseas researchers and in general has tried to help NBA members and others to achieve "BETTER BEEKEEPING - BETTER MARKETING". Many have contributed to its contents, giving much of their time and efforts.

As to its contents, sure it is open to criticism. It is often a matter of opinion for what one person appreciates another may dismiss as rubbish or old hat, and of course there are always a small number who know it all anyway.

Editors can only do the best with whatever has been submitted to them.

Are there no other means to be found to cut costs?

Yes we know that the magazine is an expensive item. Main reason for this is its small circulation. Increase that we will be half way there. Like the Apiarist it should reach pretty well every beekeeper and at a reasonable cost.

John Heineman
Librarian

Dear Sir,

Please consider continuing publication of the New Zealand Beekeeper. This publication provides views and information to the English speaking beekeeper world which are not American. The similarities and difference of beekeeping in that part of the world provide valuable experience and information to the rest.

Your magazine has a long and illustrious history which would be a shame to lose. Economics are impacting the beekeeping industry around the world, but if those difficulties could be overcome, I think New Zealanders and much of the rest of the world would be benifitted.

Stephen Bambara
NCSU-Entomology
Box 726
Raleigh, North Carolina
USA

NO LETTERS IN FAVOUR OF THE EXECUTIVE'S DECISION HAVE BEEN RECEIVED

Dear Sir,

I was shocked to hear about the National Beekeeping Executives' proposal to discontinue the New Zealand Beekeeper (and Buzzwords) and to replace it with a bi-monthly buzzwords. Although I think that the Beekeeper should be continued this is not the major issue here.

The industry has clearly expressed its wishes to the Executive on this matter, e.g. remit 10 at the 1991 conference which was lost 0-12.

"That this conference recommends to

executive that the "The New Zealand Beekeeper" magazine be discontinued and replaced with a cheaper form of "Buzzwords" as a three-monthly newsletter to advise beekeepers of newsworthy issues." This is a clear recommendation that the industry wishes to keep the New Zealand Beekeeper.

If the executive is in some doubt on whether the industry wishes it to act on its remits at Conference then they should read the Waikato remit at the last conference which was passed 12-0 "It is the recommendation of the conference that executive should act more fully on remits passed at conference."

The question that should be asked is why our elected officials should choose to constantly ignore the wishes of the beekeeping industry. If the reason is to save the industry a few $ they could save even more by doing away with our Annual Conference as they are wasting both our time and their own if they are going to do completely the opposite of what the industry recommends that they do.

A.R. Blackman
Turangi

Dear Sir,

Your magazine is the only place where your country, New Zealand, is even mentioned here in mid-America. It would be all too easy to forget you exist given the lack of news coverage our media gives you. For example, I knew nothing about the Canadian-New Zealand economic ties were it not for your magazine. Keep up the good work.

David Kelser
Rhodes College
Memphis, Tennessee
USA

Dear Sir,

I am planning to arrange a trip 'down under', which I hope to finance by beekeeping during your busy season.

`Ron Brown suggested I contact you when I asked him for leads.

I've kept bees for over 20 years, (40 colonies now), and ran my own chemical business for 30 years and can turn my hand to virtually any job.

In addition I have taught beekeeping and worked in Pakistan last year, as a short term expert, teaching and assessing a group of Pakistani beekeepers on a German overseas aid project run by GTZ. Andrew Matheson of IBRA recruited me for that job. Unfortunately, political problems in Pakistan have terminated the project early.

As you see I have the National Diploma in Beekeeping and am an Examiner for the NDB Board and The British Beekeepers' Association for whom I have been Exam Board Moderator for the last seven years.

Can you provide employment for the season or put me in touch with anyony who can? Many thanks for your help.

I can of course provide you with reference or CV's but either Ron Brown or Andrew Matheson will speak for me.

Yours sincerely

Ian McLean
"Asland" Flash Lane
Rufford
ORMSKIRK I40 1SW

TIME MANAGED BEEKEEPING

by Tobias Stever
Landau, Germany

I started beekeeping in 1984 at the age of 14. A beekeeper, who has assisted me with valuable advices ever since, referred to a publication of the ADIZ (Common German beekeeper journal) from 1979 by the commercial beekeeper Mr Deichmann [1]. His work introduced me to a method which enables the beekeeper to manage with usually only few temporal fixed interferences per year.

I have harmonised this method in the last few years to my conditions. In the due course I am running about 20 colonies in hives/multiple storeys in the region of the Middle Rhine Valley. In this region the yield starts with the fruit tree blossom and continues nearly uninterrupted until it ends with the sunflower flow.

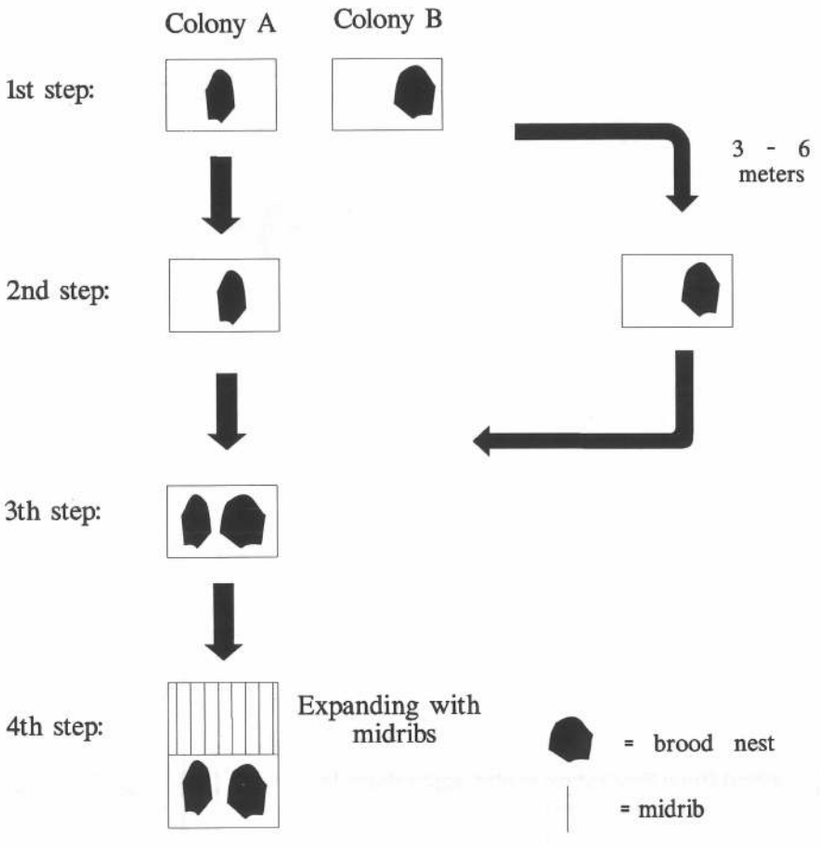
This work introduces my methods to manage the colonies. The aim is to leave the bees without control over periods as long as possible and to carry out necessary interferences on the bases of a fixed long term plan. As I am studying I do not live next to the bees. So it is important for me, to manage the colonies with as few controls as possible.

Special faults and experiences in my first years, they have lead me to the opinion that every omitted interference means an active contribution to a quick development and a healthy growth of a bee colony. Therefore I wanted to cultivate young colonies, which are perhaps ready for a late yield (forest) or which in any case are ready to start as powerful colonies in the next season.

In spring (at the beginning of the fruit tree flowering) I tried to start with similarly large and strong colonies. This has the following advantages:

* Due to the uniform size there is the same work for swarm control as for creating new colonies.
* During summer there is less demand for control as the problem of absconded swarms is minimised.
* Finally the powerful colonies guarantee a good yield of the early honey flow if the weather allows it.

This means that the sizes of the hibernated colonies have to be adjusted. I can reach this first goal by unifying colonies in the spring. In the literature it is often suggested to reach this adjustment to change single combs. Surely this is the easiest option. But it is in total opposition to a natural cultivation of colonies.



Uniting of colonies (single-supered)

Thun [2,p.95], for example, utters the following objections: "It is questionable, whether it is right to separate brood from the grown brood nest to bring it to a totally different place...The brood nest is started, enlarged or cut where the colony decides this. If the beekeeper (...) brings disorder into the colony structure, he fulfils his own imaginations, but surely not those of bee." Nevertheless Thun tries to start with similar strong colonies in the spring.

The comment of Ferdinant Gerstung [3,p79] on this in 1902 was that "the beekeepers makes the worst disorders of the brood nest obviously themselves, by taking combs out of the brood nest regardless of the basic law of the system of the brood implementing others, adding combs changes, in short, playing with the extremities of a bee colony as if the colony were a funny man."

I found the following compromise for me, with which I try to combine theory and practise: I do not change single combs but unify healthy and small ones with large colonies, to reach nearly the same stage of development.

As I winter the bees colonies in one as well as in two supers I have two similar but not idential ways of unifying. They have the following scheme:

1. Unification to create a single-supered colony:

I always unify two colonies located next to each other. At the time there should be a good flight. If both colonies to be unified to not stand beside each

other I carry them to a place at a distance of at least five km away where I place them side by side.

After the bees have got used to their new environment by making exploration flights I carry one of the colonies some meters away and put the other colony in the middle of the place where the two colonies have been before. So all bees fly into the left colony at the original place.

Latest in the morning of the following day when hopefully all bees returned to the left colony, I proceed with the final steps of unifying them.

I put the brood of both colonies into the first super by creating a brood nest as compact as possible. Both sides of the brood nest should be made of feed combs. It has to be prevented that the brood nest takes too much space as there is the danger of cooling down if a part of the brood cannot be warmed in bad weather. Future illnesses could originate from this. With this method both the bees left on the brood and always exactly one queen do come together. If there is a reason to remove one of the queens I can do this without problem before the unification.

If not, I leave the choice up to the bees. It is my conviction that the better bee queen survives. In both cases there are no problems with the unification at this time of the year. In the progressing year this kind of unification cannot be done without problems. I enlarge this one resulting super as soon as the weather and the size of the new colony allows this with a super with midribs to promote the building of the combs. In any case it has to be guaranteed that enough food is left with the new colony if necessary by implementing a food comb in a second super.

2. Unification to a double-supered colony:

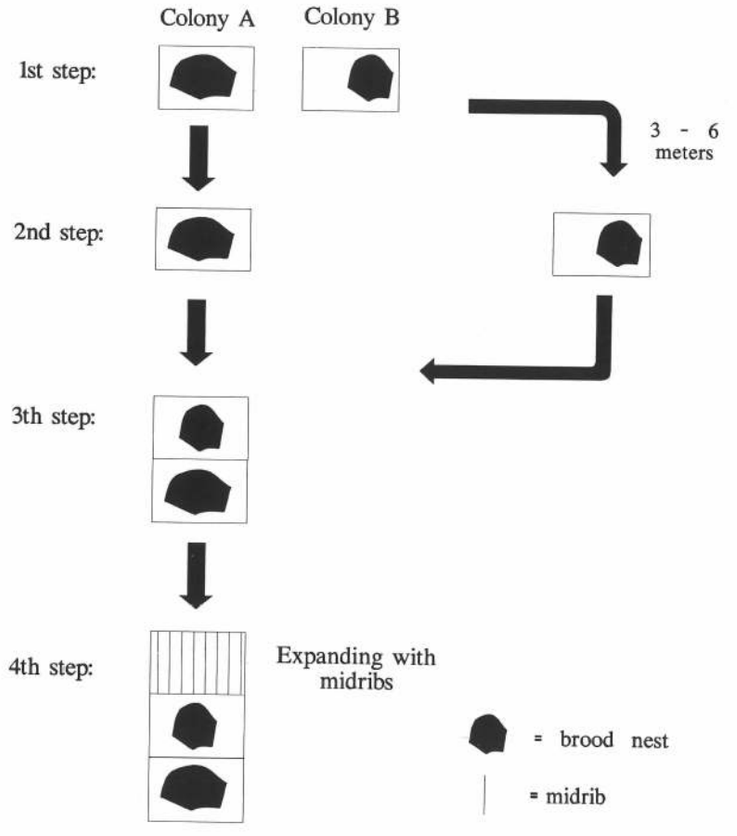
I work in the following way if there are more than one super full with brood nests due to strong colonies. First I let the flying bees settle in another colony in the way described above.

Next I put the brood nests together in two supers. Especially in the case of double-supered colony a compact brood nest is essential.

Also here sufficient food supply has to be guaranteed.

As a third super I add again one with midribs if the size of the colony and the weather allow it.

In the case of a normal colony development already at the beginning of many (with the rape) there is the danger of swarm fever. To prevent the growing mood to swarm and to prevent swarms soon individual interventions into the colonies will be adequate. If needed, nucleus colonies would have to



Uniting of colonies (double-supered)

be formed at various dates in the one or the other way. This usually comes together with a considerable loss of proceeds, which is not my wish.

To prevent this and to coordinate the necessary work I follow the idea of Deichmann to divide the colony into a flying and a breeding colony. With the flying colony I can utilise the actual nectar flow, e.g. rape and acacia.

After this it is worn out as it has no more flying bees and it is cultivated as a young colony for the next year. With the breeding colony I can utilise the following nectar flows (chestnut, sunflower, forest), as it has the size of a performing colony.

Precondition for the division of the colonies is that they consist of at least two supers of brood nests and one honey super free of brood. The operation of this scheme is presumably difficult for gives with side opening.

Procedure:

1st day:

First I put queen excluders between all supers. The colonies have to be free of swarm cells in any case. If there are already queen cells all of them have to be removed. In this case it is better to create a nucleus in the ordinary way as existing queen cells would bring the following time table into disorder.

9th day:

In one super there is the queen with open brood, in the other is sealed brood. I put the super with the queen and the uncovered brood some meters aside on a new bottom with a new alighting board, now the flying bees can explore the new environment first. This is now the breeding colony.

The super with the sealed brood stays on the old bottom and the old alighting board at the original place. The fly bees from the breeding colony return back to the former place. This colony without queen is my flying colony.

Into the flying colony I put a marked comb with eggs and young brood which I removed from the breeding colony (or any other good colony). Attention: It is important, that there is no queen on this comb.

For this reason I brush the bees from the comb before changing their place. In addition no queen cells are allowed on the comb as they make the timetable

uncalculateable. The flying colony receives the honey chamber (perhaps with midribs) without a perforated partition. The great amount of flying bees which have to look after nearly only sealed emerging brood can use the nectar flow and need appropriate store room capacity.

The bee colony had been narrowed at the first day by the perforated partitions. For this reason it can happen that there are queen cells in the breeding colony. But they are removed by the bees themselves after they start exploring their new environment so there is no danger of swarming. It is necessary to control the food storage in the breeding colony and to add some food combs if necessary. This is important as the breeding colony cannot guarantee their own food supply in the first one or two days due to lack of flying bees.

16th day:

The breeding colony is enlarged by a super of combs which have been used for breeding before and by additional madribs. If there were no enlargement swarming fever would start quite soon again.

Adding midribs has to be done with care. Some years ago I only added midribs because of a lack of partly breeded combs. The result was that the bees began to swarm instead of accepting and building up the midribs.

The flying colony should not be moved between the second and the fourth operation. This means after the ninth day as there is otherwise the danger that the larvas in the queen cells drop from the feed.

22th/23rd day:

The marked combs in the flying colony are removed out of the supers carefully. In the meantime the bees have created emergency queen cells. Normally some queens cells are already empty. This means that at least one new queen is already in the colony. I carefully open the left queen cells or repectively catch the queen in the moment she emerges. In doing so I receive several virgin queens.

After separating the emergency queen cell I add one virgin queen in any case as I mostly do not know for sure whether an emerged queen is in the colony. If this is the case the stronger queen will usually survive. In any case there must not be a emergency queen cell left to prevent the escape of a prime swarm.

Attention: The moment the queen emerges must not be missed as the flying colony would swarm otherwise. If I have no time at this day I remove all but one queen cell some days before. The young virgin queens I store in hives or I give them away after the copulation.

45th day (approx):

The colonies are controlled for having or copulated a queen. By doing so, it is entirely sufficient to see open brood.

If there is a colony without brood which creates emergency queen cells during the queen test I add a queen out of the hives.

Advantages of the method:

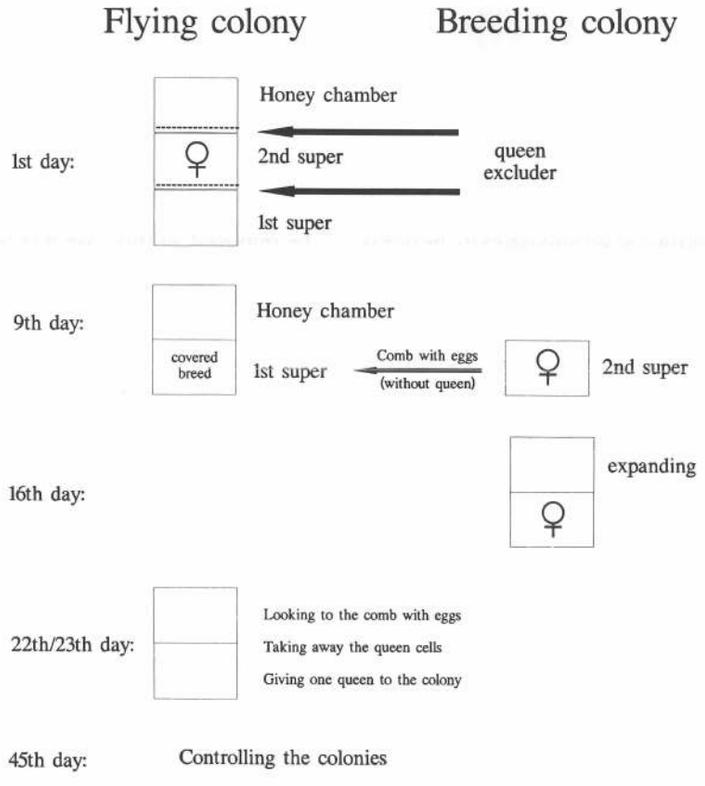
I can fix the dates of operation in the colonies very early and coordinate those with the other dates.

* Know the condition of the colonies in every stage.
* With this method there is never the need of searching for the queen.
* I prevent the swarm fever without losing swarms.
* The number of bee colonies is reduced to the last years level and I received young flying colonies with your queens.
* The breeding colonies are ready for a late flow (chestnut, forest,...)

Disadvantages:

* In the case of mass flows it can occur, that the flying colony is not capable of drying the honey sufficiently, because there is not enough heat generating brood or house bees are missing. But htis only means that the honey cannot be done from the typical spring flowers. Never then less a later extraction producted a good quality of honey every year, possibly it is a honey mixture from fruits, rape and sometimes acacia (spring flower honey).
* More recent examination by Ullmann/Wurker [4] suggested an decrease in yield of 11 kg (examination in 1990 and three kg (examination in 1991) with a similar operation system. (It has to be mentioned that the operation system on which the examination are based differ to some extend as for example the flying colony receives a copulated queen immediately afters it creation.)

I accept a further decrease in yield because of the reasons mentioned above as I was always very satisfied with the obtained yields. Even more important in my view is the possibility to fight the varroatose in the same time without additional effort. A quantitative analysis of this aspect may have been the reason for the mentioned work [4].



Procedure of time-managed beekeeping

cont. page 13

REPORT FROM TELFORD

by Gavin McKenzie

Education Intramural

At present we have at Telford three New Zealand students on the one-year certificate course. Over the past 12 months we have had three students on the one-year certificate course and two for a three-month study course and expect a further three students from the Solomon Islands to begin a three-month course in September.

This has meant at most times we have had up to nine students on apiculture courses at Telford and including agriculture students assigned to apiculture we have often 11 students to teach.

The overseas component of this programme has been very important in keeping the course viable and fully utilising the resources.

Prospects for the future look good with strong interest in the course from New Zealand students and ongoing work internationally to recruit students.

The nature of the course catering for a varied group of students, i.e. ethnic groups, age difference, and tropical/temperate beekeeping makes life very hectic from my point of view, but we have coped with good outcomes and satisfied students needs wherever possible.

Correspondence Extramural Students

At present we have on this two-year course 35 active students throughout New Zealand and one overseas student.

We are working on developing this area further as it provides a service to a lot of people unable to attend full year study course.

In this area we are presently rewriting all the modules of learning to update and include new technology to make this a course second to none in New Zealand.

We have received a grant from NBA Trust Fund to help develop this material and will soon be appointing a full-time curriculum development person to undertake this work over the next twelve months.

I would expect to have samples of this work available for perusal by industry members at the next conference in Tauranga.

This course material will also form the basis of theory study on the one year certificate course at Telford.

Prison Education

We have over the past year developed a course in apiculture at the Mangaroa Prison in Hastings. This has come about by an approach being made to myself from the Programme Manager at Mangaroa.

We have employed Mr Paul Ashcroft as a part time practical tutor for the in house teaching component and the theory training is carried out via the correspondence at Telford.

This programme has 12 students on it and is having a terrific impact of the lives of the people involved.

I have received very good feedback from the students and prison authorities and due to this other courses in practical subjects have been submitted for consideration.

This has opened up a new field of opportunity to Telford and should this programme continue to succeed it is envisaged other prisons would wish to adopt similar programmes.

Student Projects at Telford

Approximately two years ago, I implemented as part of the year course, a period set aside for students to carry out a major project. The criteria used was that the project must be profit based and involved the use of bee products in some form.

The idea behind this was to test students initiative to see if they could think laterally and be self motivated. This work is largely unsupervised and an evaluation of the achievements is done at the end of the course and has an effect on the overall marks achieved by the student, i.e. practical, theory and projects are all assessed individually and combined to get the final mark overall.

This has been taken up very positively by some and not so by others, but it does have the effect of showing the self discipline necessary to succeed as an individual in business which is very important. We have had a vast range of projects from cosmetics, candles, fire lighters, filtration of honey, pollen based products, larvae harvesting and fruit flavoured honey to name but a few and all project material is kept on file at Telford for future reference of new students. This has been a very worthwhile addition to the course.

Museum Development

This has been a pet project or ambition of mine for a number of years and with the passing of Mr Bill Ogilvy, Mr Colin Cunningham and Mr Eric Winslade, I have been given a selection of old documents and memorabilia with which to start a beekeepers' museum at Telford.

This year I have been fortunate to have a student, Adam Waite, whom has an interest and some knowledge of museum layout and Adam has taken this as his major project for the year. Some restoration of old boilers, uncapping planes, etc. have been completed and display cases with documents etc started. We have an area at Telford in which to house our displays in the old stable building which is designated as a museum.

I see this as important to preserve our beekeeping history and I'm not aware of

A GERMAN METHOD (cont.)

Due to the interruption of the brood in the flying colony also the population of varroa mites is restricted, as there is only the one comb with eggs for them. Thereafter is for a longer period no open brood available where the varroa mites could breed. This has to be considered if the quantitative results about the efficiency by Ullmann/Wurkmer are taken for comparison. They calculate an efficiency of 55% and say "...considering that a medical treatment is possible only later in the year a decrease of the varroa mite attack by 55% in the summer can be of a big important for the wintering" [4,p205]. As I work without direct sue of trapping comb - even the egg and brood comb added for the queen breeding stay after the birth of the queens and removal of the queen cells in the colony - I certainly cannot give exact figures about the efficiency of this operation system in Varroa prevention. But it can be stated that in the nine years of practicing this operation(2) Thun, Matthias K: "Die Bienen, Haltung und Pflege" (The bees, keeping and cultivation); Aussaattage M. Thun Verlag, Biedenkopf; 2. Auflage.
(3) Gerstung, Ferdinant: "Der Bien und seine Zucht" (Bee colonies and its cultivation); Verlag von Paul Waetzel, Freiburg i. Br. und Leipzig; 1902.
(4) Ullmann, Matthias und Wurkner, Klaus: "Was bringt die Fangwabe?" (what are the advantages of the use of the trapping comb); Die Biene, Heft 4, 1991, Page 203-206.
Ullmann, Matthias und Wurkner, Klaus: "Einstaz der 'Fangwabe' bei mabigem Varroabefall" (the use of the trapping comb in the case of a medium varroatose); Die Biene, Heft 6, page 324-327.

another beekeeping museum in New Zealand. We have made a start and hope we can build on this small beginning to a stage where we can be very proud of our museum in apiculture. There is also a big advantage in teaching to have an identifiable history for students to learn about the past and understand more fully the techniques used today.

I wish to thank all those contributors to this project and look forward to creating this for the industry with your help.

Staff on the Apicultural Unit

Apart from myself, we have Mrs Valerie Bell as course secretary, who will be known to most through the correspondence course.

Due to the increased workload we have appointed Nicholas McKenzie as a Tutor's Assistant. His duties are to run the 400 to 500 Telford hives and provide technical assistance to all areas of the course. Nicholas was a Telford student in 1989 and has subsequently worked for Milburn Apiaries until being appointed to the Telford staff. His appointment has made my impossible job more possible and he is a welcomed addition to the staff.

Currently we are in the process of appointing a curriculum development person and this person will join the staff permanently to rewrite and further develop the apiculture curriculum with the aid of the Trust Funds received from the National Beekeepers' Association. To this, I say a big thank you to the Trustees and the Industry for showing us support and enabling us to develop the best possible in apiculture education for all.

As you can see we have been progressing quite dramatically over the past year or two and my thanks to the Beekeeping Industry members and others who help to make it all possible. Many hours are given by the fellow beekeepers whom we visit on field trips to share their experience with our students and it is very important and much appreciated by us all. My aim of a good education available to our Industry is slowly being fulfilled and I am every mindful of keeping all instruction up to date and in line with the Industry's needs.

NORFOLK PUNCH

by Jill Brewis

A drink made ten centuries ago is still packing a punch - and not leaving a hangover.

Original Norfolk Punch, now available nationwide in health food shops and some supermarkts, is made to an orginal recipe dated 974 AD which was used by Benedictine monks living in Norfolk, England.

Just as the monks provided spiritual guidance for the local people, so they also cared for their physical wellbeing. Their recipe for Norfolk Punch claimed to "ease the headache," "marvellously do help all cold and rheumatic distillations of the lungs and other parts," "kill worms in the belly," "preserve from drunkenness," "do help consumption, old coughs, shortage of breath and the megrim," "warm and comfort a cold stomach," "help digestion and is a remedy for surfeit," "help weariness and pains that come by sore travelling," "mightily expel the wind from those who suffer with it," and "seven doses do causes a speedy delivery in childbirth."

The original recipe contains more than 30 herbs and spices which grew in the monastery gardens, which were distilled in well water and sweetened with honey. It also gave advice on picking herbs at particular phases of the moon. Many of the herbs in the punch - feverfew, vervain, samphire, for example - are naturally bitter and so honey is added to the brew to make a pleasant but not cloying drink.

The monks inhabited Welle Manor Hall, which grew from humble beginnings as a wattle and daub building into a stately manor house. However in 1539 Henry VIII suppressed the monastries and sold the estate - to his own church.

The house and surrounding lands remained in church hands until 1984 when it was acquired by an English inventor and philanthropist, Eric St John Foti. At the time the building was semi derelict, the garden overrun and the well in the yard with covered over.

Foti wanted to restore the house to its original glory. In searching through old documents found in the house to ensure that the restoration was authentic, Foti discovered a 'Book of Secrets'.

Among the vellum pages was the recipe for a herbal punch. It was written in Latin but that did not phase a scholar like Foti. He decided to make a batch and over the next eighteen months be refined the recipe until he had a drink which he enjoyed. His family approved so he made more.

When the local nuns asked for some to sell at their church fair, Foti produced yet another batch. The locals like it too.

Dame Barbara Cartland, in Britain just as renown for her support of natural remedies as for her success as a novelist, tried some and eagerly encouraged Foti to produce Norfolk Punch commercially.

Today over six million bottles are produced annually in England and it is now becoming available in the Southern Hemisphere.

At his home in Kendall, New South Wales, one of Foti's sons, Blair Montague-Drake, is now producing Norfolk Punch, using herbs from Welle Manor combined with some herbs grown in Blair's own herb garden and honey from bees which feed in the rainforest beside the estate.

These natural ingredients produce a drink that looks like wine and tastes like wine and yet it's not alcoholic. It's neither too sweet, too fizzy or tasteless and can be served hot or cold.

Blair Montague-Drake says the monks knew a good drink when they made one. They may have developed their punch as a medicinally beneficial potion but today all Blair claims is that Norfolk Punch warms, relaxes, calms and cheers.

Clarence Roy Paterson

by Shirley J. McChesney

Clarence Roy Patterson was born 5 November 1897 in Invercargill, the second child of George Barr Paterson and Ella Louisa Trew. The family moved to Gore in the early 1900s when George took over the "Federal Hardware". Roy attended the Gore Main Primary School and started at the Gore High School at the beginning of 1913 when he was 15 years of age. That year he won first prize for elementary science, showing at this stage his interest and ability in this field. He stayed at High School for three years, enjoying this opportunity for education.

While he was still at High School Roy's father sold the hardware business and the family moved to Queenstown where George became involved with gold sluicing (not very profitably I'm afraid). So that Roy could continue his education he boarded with an elderly lady in Gore. Roy always enjoyed visiting the sluicing claim on the Shotover River and was always fascinated by the amount of machinery required.

After leaving High School Roy worked in a garage in Gore and helped with the installation of Alfa Laval Milking Separators. During 1917 Roy took up a marine engineering apprenticeship with Stevenson and Cook, Marine Engineers, of Port Chalmers. The whole family moved from Queenstown to Port Chalmers and lived at 31 Grey St.

By now Roy's older brother, Eric, had been wounded and come home from the First World War. Understandbly when Roy wanted to join the Army his

father tried to persuade him not to go. However Roy went ahead and joined the N.Z. Field Artillery on 14 Nov 1917, just nine days after his 20th birthday. He went to Trentham Military Camp for training and left for overseas with the 40th Reinforcements. He was on Troopship 107, the "Tahiti", and they travelled in convoy via the Cape of Good Hope and West Africa. While at Freetown, Sierra Leone, for refuelling, a lot of men were infected with the influenza which was just beginning to spread around the world. By the time the convoy reached Britain virtually everyone on the "Tahiti" had contracted influenza. On arrival in London Roy was admitted to the Military Hospital at Fargo on 17-Sept. 1918. After nearly a month there he was transferred to the convalescent hospital at Hornchurch, near London. He spent two months there and took the opportunity of attending educational courses that were organised for the troops. One of these was on beekeeping.

Roy returned to NZ on the "Corinthic" and before he was discharged on 21 May 1919 he was told that he should not go back to an inside job but look for something where he could work outside. With this in mind, and with the help from the Rehabilitation Department, he went to Oamaru to work on his uncle's orchard where, incidentally, there were a few hives of bees.

In 1920 Roy bought a small mixed farm of 13 acres at Corriedale, 14 miles inland from Oamaru. The early years on the farm were a struggle to start an economic small farming unity. He kept cows, pigs, and hens and, as well, there were a few hives of bees. As time went on the bees became his main interest and source of income.

Roy was fortunate to own a small Model T Ford and this gave him the opportunity to join in the community activities held in Windsor Township, three miles away. He particularly enjoyed playing tennis and was a keen photographer. On 7 November 1923 at St Paul's Church, Oamaru, Roy married Doris Kennedy, the oldest of nine children of Alf and Edith Kennedy, farmers of Windsor. This was a marriage and partnership that was to last for 50 years.

Their lives settled into a routine of milking cows twice a day and caring for the other animals. Gradually Roy increased the number of hives and used his engineering skills to design a 20-frame extractor, stirring equipment to cream his clover honey, as well as other useful gadgets. All this time he continued his interest in community affairs becoming the first secretary of the North Otago Branch of the National Beekeepers' Association and which he helped to found on 3 Oct 1928.

In the meantime a family of three girls arrived; Shirley born in 1926, Ruth in 1929, and Nancy in 1931. Those years on the farm were very happy ones. I well remember spending many hours in the honey house helping to fill tins, pottles or jars, and pasting labels on each one.

The depression struck while Roy was trying to develop the apiary and with many poor honey seasons coinciding with this it was decided to sell the bees and farm. He was appointed Apiary Instructor for Greymouth on 15 Nov 1938 and the whole family moved at the beginning of the following year. The Second World War began while we were in Greymouth and because many young men were now enlisting for service the Apiary Instructor's job in Hamilton became vacant and Roy was transferred. This was to be a position he was to hold for over 20 years, until his retirement at the end of 1962.

On the 15 October 1940 Roy joined the National Military Reserve Unit in Hamilton. This unit was sent to the Great Barrier Island after Japan became a threat to New Zealand. He was discharged on 12 May 1942.

Because of his own experiences during and after the First World War, Roy did his best for the Second World War returned servicemen who were trying to adjust to civilian life and establish bee farms. All this time he was designing equipment and gadgets to help the beekeeper. Another of his interests were the wonderful honey and bee displays which he designed and made each year for the Waikato Winter Show.

The family well remember the great thrill we all felt when it was proved that the tutu poison was getting into honey via an aphid. About the same time wasps had appeared in the Waikato for the first time and Roy was given the task of trying to eradicate them - a hopeless task as it turned out.

On Roy's retirement at the end of 1962 Roy and Doris went to live in a new house they had built in Tauranga. Here Roy was still busy designing and making things on his lathes and becoming a much-loved Grandpa to his 11 grandchildren. Roy died in Tauranga on 22 May 1974.

The New Zealand Queen Bee Producers' Association was formed in July 1985. Its objectives could be summarised - to encourage cooperation and communication among members, promote stock improvement and good queen producing practices, and to encourage development of queen markets and research.

Members agree to a set of business ethics to ensure beekeepers are supplied with the highest quality queen bees and to maintain a good relationship between producers and clients.

Association President is John Dobson and the new Executive Secretary is Jenny Dobson, Poporangi Road, RD1 Hastings. Telephone (06) 876-0962.

Current Ordinary Members

John & Jenny Dobson, Bee Farm, Poporangi Road, RD1, Hastings. (06) 876-0962

John Bassett, Waitomo Honey Ltd, PO Box 387 Te Kuiti. (07) 878-7193

Trevor Bryant, Alpha Bees Ltd, PO Box 486 Te Puke. (07) 573-6885

Reg Clark, 81 Lakings Road, Blenheim. (03) 578-9803

Colin McLean, 36 Holyrood Road, Greenmeadows Napier. (06) 844-3467

Gerard Stephens, 26 Aranui Road, Mapua, Nelson. (03) 540-2742

Dudley Ward, Kintail Honey, 97 Guy St, Dannevirke. (06) 374-8301

Phillip Cropp, Pedigree Queen Bees, C/ Nelson Apiaries Ltd RD2, Motupiko, Nelson. (03) 522-4130

Malcolm Haines, Haines Bee Breeders, RD2 Kaitaia. (09) 408 2200

Mervin Cloake, Cloakes Honeys Ltd, Fairview No 2 RD Timaru. (03) 688-0723

Gavin White, Airborne Honey Producers, PO Box 28 Leeston. (03) 324-3569

Russell Berry, Arataki Honey Ltd, RD3 Rotorua. (07) 366-6111

Allen McCaw, Milburn Apiaries Ltd, No 2 RD Milton. (09) 417 7198

David Yanke, Daykel Apiaries, Paranui RD3, Kaitaia. (09) 408-5895

Bruce Stanley, Fosters Road, RD1 Whakatane. (07) 312-9028

Bruce Stephenson, Kiwi Bee Distributors, Landing Road, Kerikeri. (09) 407-7190

Rob Johnson, Johnson Apiaries Ltd, Whealans Road, RD1 Levin. (06) 368-1325

Associate Members

Stephen Lee, 103 Goodfellow St, Te Awamutu. (07) 871-3486

Nick Wallingford, 55 Wattling St, Tauranga. (07) 578-1422

Peter Sales, Te Ora, RD1 Port Chalmers. (03) 472-7220

Garrit Hyink, Lindermann Road, RD1 Katikati. (07) 549-1223

Frances Trewby, 24 Mt Pleasant Ave, Nelson. (03) 207-2738

Peter Morrison, Otaio, RD1 Timaru. (03) 612-2749

Ian Berry, Arataki Honey Ltd, PO Box 8016, Havelock North. (06) 877-7300

JAMES STANLEY HORN/R.I.P.

From Ken Everett

They were a goldfields family; his mother (Flora) likewise before him, and two sisters (Floss and Chris) and a brother (Gordon) all older, at Bannockburn. His uncle James with his father, Alex, Scots from Huntly, ran the store there. The former a well-known figure at the time (Chairman County Council, MP) and both had shares in the very successful Lady Ranfurly gold dredge - activities in the thick of local affairs. His early memories and schooling were of the neighbourhood. The mining claims and its characters. Later, after a brief spell in Dunedin, his father moved to a country store at Middlemarch, the district where Jim grew up. He boarded two-three years at Otago Boys High, after which he left to go farming.

Those were years when all sorts of technical marvels were entering the popular arena. Electric power, telephones, gramaphones, aeroplanes, moving (silent) pictures, the Panama Canal, cars, the railway through Central Otago. These however were secondary shows. Jim's first and lasting enthusiasms were the country life - farming - and Central Otago as the place to be.

His first job was with his brother-in-law, Will Elliott, who had taken over the Mt Ross run (near Middlemarch) from his father James Elliott, a crusty old pioneer Scot. After a spell droving sheep he went, in 1918 as a cadet, to Shag Valley Station, scene of colourful anecdotes. Will Elliott divided his run and sold about this time (1920). The Mt Ross block going to Charles ("Rooky") McDonald and the other block was taken by Jim and named Huntleigh. The latter was rabbit infested - 40,000 skins over two years and another source of stories. One of the rabbiters engaged help was Mark Baxter, one of the well-known Brighton family (including poet J.K. Baxter), all original characters in their own right. The scene was also disturbed by the arrival with Rooky of stepdaughter, Ruth White, and a track became worn between the two homesteads. In 1924, a time of depression, the McDonalds sold and went to Dunedin where Jim married the girl who had been next door. A son arrived in respectable due course.

Dissatisfied with progress at Huntleigh, that run was sold and another taken up above Miller's Flat, Economic downturn was biting and what with a combination of local sheep thieves and sharp stock agents he decided to cut losses and sell. This broke, only slightly, some bureaucratic rule about the minimal period of a loan, and on scanty evidence the government Minister imposed a penalty of 500 pounds. Today the circumstances would be considered unfair, but nothing could be done then. He found himself very much down financially. He now went to work again for Will Elliott at Clarendon where Will had taken a lease after leaving Mt Ross.

By 1931 he had scraped enough together to take on a dairy farm venture in partnership with Rooky McDonald at Otahuti in Southland. This was in the depth of the 30's depression, and with mild at four pence a gallon (a penny a litre) he had to walk off in 1932 with only his household possessions. Had he sold, the mortgagor would have got the lot. He was dead broke, but not in debt.

For the third time he was fielded by Will Elliott, who by this time had moved to the Clarendon end of his farm. So the Horn family took up house at the Milburn end (Lime Springs). At 10 quid a calendar month and found, life was not plush, but it was secure. Something to be thankful for in those hard times, and luckier than many. They were still young enough to enjoy what the district had to offer, which was a social cohesion and sympathy, country concerts, dances, and the party-line telephone, which balanced the slings and arrows of normal existence.

About 1937 Jim got an acquaintance with beekeeping, and soon realised it offered a chance to start again from small beginnings and spare time. Life began at 40.

When war broke out in 1939 the family had sold most of its chattels to raise money (they could not have been taken with them anyway), resigned from the farm job, and on that day took their first load of hives to a new hope at Kokonga in the Maniatoto. This was an area as yet unoccupied by any commercial beekeeper.

It wasn't far from pioneering. A generous farmer, Andrew Pearson, had an old somewhat dilapidated two-room cob cottage at the Houndburn; an out of the way gully. He let Jim and Ruth have it, rent free, provided they fixed it and kept it in repair. There was no phone, no power, no well, only an old stable to store their bee gear. The first season's honey was extracted in a tent. Not very bee-proof. Although confined it was not altogether uncomfortable. With less to look after, Ruth was able to get out and they both tended the bees. The main loss came from the isolation and they were not able to join in the district's social affairs as readily as before. The hard work also took its toll. Twenty years of disappointment and sacrifice made an imprint.

But from this time they gradually gained erratically. Up in good years, down with droughts or summer frosts. The off-season for bees is winter and at first these were spent rabbiting to supplement income or even survive. A proper honeyhouse was built (at Houndburn). Young Ken Everett came to live and work with them for a few seasons. About 1950 a small section beside the Kyeburn bridge was purchased and another two-room cottage (a bit bigger!) and honeyhouse went up.

About 1962 they decided to call it a day, sold, and went to Dunedin there joining Ruth's mother, Isabella McDonald. Their so-called "retirement" saw them engage in a small scale spate of "landlording" of several small flats in central Dunedin. This occupation was a bit out of character, and after a year or two it palled. However it helped their situation measurably and enabled a more realistic retirement, even a few holiday trips around Aotearoa, something they hadn't done for 40 years. In 1984 they had their diamond wedding. In 1986 Jim again passed his driving test but now old age was making it presence felt.

After considerable family discussions they opted to enter the St Barnabas home in late 1986. Not many couples make it so together. There they briefly flourished. Just short of her 92nd birthday frailty caught up with Ruth in 22.8.88. Some relatively active years later Jim joined her 2.4.93 after a few months illness belatedly diagnosed as cancer, age nearly 94.

While his health lasted he enjoyed those last years at St Barnabas, one of the longer stayers, appreciating its friendliness and efficiency, a home within a home. He was cheerful and mentally bright to the last which makes his loss more keenly felt.

GOOD READING

from John Heineman

Additions to note in your copy of the catalogue:
We purchased the following books:
HONEY WINES AND BEERS 32 pp., 1978, U.K. and HOW TO MAKE BEESWAX CANDLES, 20 pp., 1980 U.K. Both by Clara Furness. Good little books to borrow if you are interested in the subjects as named in the titles. The new edition of "THE HIVES AND THE HONEY BEE", 1324 pp., 1992, USA. Dadant publication. A number of authors have contributed to this very bulky reference book. It contains an enormous amount of fact and is perhaps the most used book by students of beekeeping. Lots of new and updated material. It did not come cheap so let us hope it will be used well. There was a review of this work in Buzzwords no. 53. Received from the author Mr Ron van Toor:
COMMERCIAL PRODUCTION, STORAGE, PACKAGING AND MARKETING OF ROYAL JELLY IN NEW ZEALAND, 1991, 58 pp., NZ Mr van Toor conducted research in this subject at Invermay Research Institute. The book gives his findings and conclusions and describes the methods followed. Good clear print, some colour photos, diagrams and figures on production and financial return.
Two study papers:
INVESTIGATION OF THE PARASITIC STATUS OF MELITTIPHIS ALVEARIUS (BERLESE) ON HONEY BEES, APIS MELLIFERA L., BY IMMUNOASSAY. 1989, 8 pp., NZ by R F van Toor and B L Gibbins. EVALUATION OF ACARICIDES FOR CONTROL OF MELITTIPHIS ALVEARIUS MITE IN EXPORT BEE PACKAGES, 1989., 5 pp NZ also by R F van Toor.
From the NBA's Marketing Committee:
"INDUSTRY MARKETING PLAN", 1993, 104pp., and appendices, NZ by Floyd Marketing.
GORE SEMINAR HAND OUTS, 1993. Folder contains: Quality Assurance options (Denise Riches), Quality Assurance, Food Safety in the Employment Act and Managing Health and Safety (Dept. of Labour), Employment Contracts (Craig Coburn), Employment: Your Contract, Rights and Obligations (Industrial Relations Service).

A box full of old magazines to fill gaps in volumes came from Jenny and John Dobson and with it a real little classic: "FABRE'S BOOK OF INSECTS" by Mrs. Rodolph Stawell, 1925, 192 pp., UK. Some of us may remember reading it during our school days.
Mary-Ann and Frank Lindsay donated three video tapes:
video 7. MARKETING — HIVE LEVY INCREASE, 1992 Confernce;
video 8. NBA Seminar 21.7.92, morning session;
video 9. NBA Seminar 21.7.91, afternoon session.
Then we bought our video tape no. 10: ENDEMIC BEE DISEASES, 49 min. duration, produced by the NSW Dept of Agriculture. This tape was shown to us at the Disease Seminar held at Telford Rural Polytechnic last August and we were all very impressed. Highly

recommended for other seminars, branch or club meeting. It includes things s.a. EFB which to us here in NZ is still exotic but we just as well know something about it for after all it is near enough for comfort, just across the big ditch.

It has just arrived in the mail with the complements of GP Publications and of the author:
The revised edition of PRACTICAL BEEKEEPING IN NEW ZEALAND by Andrew Matheson.

In general it is very similar to the original book but as changes have taken place during the past decade the author has endeavoured to incorporate these and has also added the description of certain practices now common in the management of bee hives and in the care of equipment.

Chapter 4 (Hive equipment) has been extended with a section describing the technique of paraffin wax dipping. Chapter 9 (Feeding Bees) now has a section on the feeding of pollen and pollen substitute.

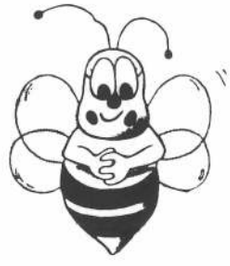
Food hygiene and weights and measurement regulations have been updated.

Chapter 21 (Further Sources of Information) has been somewhat extended, especially pointing out the International Bee Research Association as a very important source, true, and apt of course for Mr Matheson is its present director, but he omits to mention our own Beekeeping Library, so close to home.

Comparing this new edition with the old one it seems that a bit of economising has taken place. From origianally 184 pp. it has been contracted to 144 pages, the two colour print (brown and black) is now only black and a number of photos have been somewhat cut down. The glossy paper is no longer glossy. However these are minor points and do not degrade the book in any way. The print is clear and the outside appearance is pleasing with the foraging bee on the front but now on a green instead of a black background.

It is very pleasing that once again this valuable beekeepers manual is readily available. It can be bought from all leading book sellers or directly from GP Publications Ltd., 10 Mulgrave Street, P.O. Box 12-052 Thorndon, Wellington. The price is $34.95

The Editor would like to thank the contributors who have not only provided instructive and lively reading over the 10 years of his tenure but have made his work so much easier. Thank you again.



BEAT THE BUG

by John Heineman

I have had the pleasure and privilege to be able to attend the 1993 NBA conference and the pre-conference seminar. A privilege it was for both the seminar and conference had much to offer. Looking back at a fair number of beekeepers conferences at which I have been present this last one, in my opinion, has been outstanding as to the very positive attitude shown by those people participating with regard to the problems facing our industry.

The seminar focussed on QUALITY and the probably most important and far reaching resolutions passed at conference were these aiming for: THE ERADICATION OF AMERICAN BROOD DISEASE BY THE YEAR 2000. When talking about quality one thinks in the first place of the products of the hive: honey, wax, pollen etc. Of how to achieve the perfect product, packed and presented to the buyer in its most attractive form. Finding a place for it in a lucrative market and securing a satisfactory financial return.

Quality is so very important no matter if it concerns primary products, manufactured goods or services.

It is fashionable for most of us to look for "bargains", cheap goods, discounts so as to make our dollars go further. That's fine and often a matter of necessity. But it does not always pay in the long run. It is quality which determines real value. A good article, well made solid and long lasting, nutritious food pleasing to the taste buds, a well done job etc., etc, give far greater satisfaction than cheap rubbish and shoddy work.

If as beekeepers, small or big, we want to aim for quality give products, and I take it that every beekeeper wants to, we must in the first place aim for QUALITY IN MANAGEMENT OF THE HIVES IN OUR CARE.

We have to realize that our production line starts right down at the bottom board and that we need to calculate and execute every move up the line to the best possible standard.

It does not matter if one runs xxxx hives or just one at the bottom of the garden, that xxxx of pottles are on the super market shelves, many drums are filled for export or the surplus of the one hive arrives on the table or is given away to friends and relatives, as long as it is the best and is an advertisment for honey.

New Zealand, relatively a small country, produces a great variety of honeys coming from the different nectar sources. Clover, heather, heath, kamahi, riwa riwa, pohutekawa etc. Colour differs and so does flavour. From water-white to dark as a brown beer bottle and from very mild to strong. In the past the light-coloured and mild-flavoured honey gave the best returns. It was certainly an arbitrary way of grading and has changed. In the early 1960s white clover fetched 1/s 9d. per pound and manuka just nine pence. Look at it now, manuka has out paced white clover and honey dew honey, judged only to fit for feed, found a good market. It is funny how attitudes towards a product change.

So to think that your honey is inferior because you happen to live in a district where the bees gather nectar from bush sources is simply not true. That honey is good as long as the beekeeper is good and does not spoil things through haphazard management or ignorance.

In other words it is not the bees which cause the problems, the blame must be laid with us beekeepers.

If we want to win this "battle against the bug" we must all join in, big or small. And it is of vital interest to the small beekeeper no doubt.. Have a look at the following figures. In 1991 only 1% were found to be diseased (B.L.) representing 3160 colonies but spread over 6% of registered apiaries. So 3160 hives go up in smoke. At a value of say $75 per hive that means a loss of $237,100 to the industry and loss of potential crop and time (wages) and heartbreak and worry.

Presume you run five hives and one is diseased you have a 20% loss; five diseased hives out of 50 means 10%, 20 out of 500 is 4% and 20 out of a 1000 is only 2%. That shows that the owner of a few hives really suffers the greatest loss in relation to the size of the hive holding when expressed in %.

So let us get stuck into it, all of us. And please don't you knock it, don't say that it is impossible for BL has been with us for so long that we just have to live with it.

Some 90 years ago a beekeeper by the name of Isaac Hopkins started the battle against American Brood disease in earnest. A report I read stated that at that time approximately 70% of the bee hives were infected. If in 1992 we found 1% infected then we can say that progress has been made. So it should not be impossible to clean up the remainder during the next six years. It will not be easy, every beekeeper must join in and be very serious about it. There is no doubt that QUALITY IN HIVE MANAGEMENT in its widest meaning is the KEY TO SUCCESS in the BATTLE AGAINST THE BUG.

Accepting that the beekeeper is the main cause in spreading BL infection it is logical that we must have a look at ourselves first and go from there. Why is it that the beekeeper is his own biggest enemy in this context? There is ignorance, lack of care during manipulation of hives, lack of inspection before harvesting honey or before shifting colonies, negligence, irresponsibility towards neighbouring beekeepers and a lack of communication to name some of the causes. The remedies are pretty obvious.

QUALITY EDUCATION
QUALITY HIVE MANAGEMENT
QUALITY COMMUNICATION

It is like a prescription, three lots of pills, one will not do any good without the other two.

Education. Join a NBA Branch or Beekeepers' Club. Attend their special "disease" meetings: s.a. field days, seminars etc. Learn about disease recognition. Make use of available videos, slides, speaker and, if possible, study the real thing.

Ask for such meetings to be called, push for it and perhaps take the initiative. Make sure that non-members are made welcome.

Take part in a disease-a-thon and work alongside an experienced person. Nothing better than a "hands on" session. Make use of the NBA library, your MAF Apiary Advisory Officer, or any other source of information. This is the answer to ignorance.

Hive Management. Make a very thorough spring inspection. Look systematically over the brood combs. Don't confine it to just a glance at a couple of combs in the top super but examine the bottom brood box too. Watch out for those odd-looking cells with sunken and discoloured cappings often perforated. Affected larvae will "rope" when attempting to remove it with a small stick.

Be on the alert every time you open up a hive and look at brood combs. It is not vert difficult to recognize the signs when one strikes a badly infected hive but it is of course very important to pick it at an early stage when only a few cells show up.

Thorough inspection for BL should

again be done before removing any surplus honey or before shifting colonies.

Do not interchange combs between hives without first making sure that it is safe to do so.

Only feed honey if you know that it originated from a safe source. The same goes for pollen.

RISK IN BUYING USED EQUIPMENT

Be careful when buying hives and used equipment. There can be a risk. Again inspection!

It has been proven that extracting supers, especially wet ones, can be a main reason of spreading BL infection. If one has only a small number of hives it pays to number each one and mark the extracting boxes correspondingly. Replace combs in the super they came from. Don't replace those supers on hives at a later date before inspection. In that way there is considerable less risk. When such a system is not practical, in the case of larger outfits supers can at least be marked in such a way that it is known from which side they were taken. The risk is then confined to that apiary. Have a sensible system, go to that extra bit of trouble, it will pay for itself. And don't become complacent after being free of disease for a period. It is always round the corner.

WATCH FOR ROBBING

Robbing may also spread infection. Try to avoid it when working hives. Don't leave honey combs exposed, drip honey all over the place, or spill bits of wax. Do the work thoroughly but as speedily as possible.

Drifting could perhaps also be a way of spreading infection. It is a good thing anyway to minimize this and the best way is not to have the hives lined up in neat straight lines. Place them so that entrances face different directions.

Make sure that hives are safe from disturbance by live stock. A knocked over hive will probably be robbed and if diseased the robbers will get it too.

Having hives in good repair, without unwanted holes or cracks, will also lessen the risk of robbing.

Personal hygeine is another aspect. Disease spores can be carried on your hands, gloves or hive tool. After finding and infected hive, take precautions, disinfect.

Never play around with a diseased hive. Once you are certain that it is BL, BURN. There is no need to become paranoid about American Brood Disease but there is no harm in trying to be a perfectionist in hive management.

That brings us back to attending branch and club meetings, field days, seminar and disaease-a-thons as that is where communication between beekeepers takes place besides that aspect of education. And don't forget to put the pressure on to the other beekeeper to come along.

We had a total of 5622 registered beekeepers in NZ. Of these 3712 own 1 to 5 hives, 1394 have 6 to 50 hives and the remaining 516 run more that 50 colonies. It is this last group which at present carries the financial burden of disease control. And a pretty big burden it is. Not very fair but nothing can apparently be done about it at this stage. There it is.

PULL YOUR WEIGHT

Therefore, is it asking too much from you as a beginner or small scale beekeeper to pull your weight by giving the beekeeping industry your full cooperation and take an active part in this BATTLE AGAINST THE BUG?

It has taken more than 70 years to reach the present relatively low level of BL infection so let us all be positive and clean it up.

Not that we will not have to be vigilant after the turn of the century for we have been told the BL spores will survive for 40 years and longer.

However there will be greater security, not the present recurring financial loss, and a lot less worry and heartbreak.

Communciation. More important than some of us seem to think. MAF still plays a vital part. Not only in consultation and instruction. There is the Apiary Register, a main stay in case of disease outbreak, may it be endemic

BE LEGAL BE REGISTERED

or exotic. So please BE LEGAL BE REGISTERED. How do you handle your hive return? Is it being completed and returned in time?

Be on good terms with your neighbour beekeeper. If you find trouble get on the phone and let him know without delay. He will appreciate that and will want to keep a close eye on his hives near to yours. He will repay it sooner or later. There is no sense in being secretive about BL infection or be embarrassed about it. The one who tried to hide it should feel ashamed. Together you will have a better chance to find the source of the trouble. And together you may make a better job of cleaning it up. And notify MAF immediately. That too is part of the communication.

If uncertain ask for advice from someone more experienced or give assistance if the boot is on the other foot. Keep an eye and ear open for any unregistered hives or neglected ones. Tell your Branch or Club Exec. about it or let your apiary advisory officer know, they will know what action to take. No good to say: none of my business. It is you know for it is the only way to get on top of things.

LEGAL REQUIREMENTS FOR EMPLOYERS

There are minimum legal requirements which apply to all employees. These requirements apply even if they have not been included in an employment contract. Employers and employees *cannot* agree to do away with any of the minimum requirements, but they can agree to better provisions than the minimum requirements. The main legal requirements are:

Minimum Wage

All employees aged 20 years or more must be paid the statutory minimum wage, that is:
$6.125 per hour
$49.00 for an 8 hour day
$245.00 for a 40 hour week

If an employee is provided with board and lodgings a deduction of 15% for board and 5% for lodging can be made.

The minimum wage can change from time to time.

The minimum wage does not apply to persons undergoing training, including training recognised under the Industry Training Act, in certain occupations.

There is no statutory minimum wage if you are aged under 20.

Equal Pay

An employer cannot pay men and women different rates for doing the same, or substantially similar work, if the only difference is their sex. (Equal Pay Act 1972).

In addition under the Human Rights Commission Act 1977 and the Race Relations Act 1971 your employer cannot discriminate in hiring or firing, training or promoting because of your race, colour, sex, age, martial status, religious or ethical belief, or national or ethnic origin.

Holiday Pay

The Holidays Act gives all employees rights to paid annual holidays whether they are full-time, part-time, temporary or casual workers, adult or young employees.

Employees are entitled to at least three weeks paid holiday after working continuously for the same employer for 12 months. Employers must allow employees at least two weeks of uninterrupted holiday within six months of qualifying for annual holidays, and the rest of the holiday must be allowed within the next six months.

Employers must give employees at least seven days notice of the date on which part of the holiday must be taken.

If an employer shuts down for Christmas or at the end of the season, employees who started their employment less than a year ago should be paid holiday pay at 6% of their gross earnings.

All holiday pay due to an employee should be paid to the employee at the time the employee leaves the job.

EXPORTING

The NBA has, with the assistance of its members, established an export liaison group. This group will assist members who:

a) may be considering exporting

or

b) wish to discuss an exporting matter with someone else in the industry.

The following members will be pleased to provide information for members new and inexperienced in the export of honey.

ORGANISATION	CONTACT PERSON	TELEPHONE NO.	FAX NO.
Airborne Honey	Peter Bray	(03)243569	(03)324236
Arataki Honey	Percy Berry	(06)8775400	(06)8774200
Ceracell Products	Stephen Mahon		(09)2740368
Kintail Honey	Dudley Ward	(06)3748301	(06)3748256
	James Ward	(0728)58038	
NZ Honey Producers Co-Op	Steve Lyttle	(03)6848882	(03)6884859
Southern Honey Exports	Allen McCaw	(03)4177198	(03)4177198
Waitemata Honey	Neil Stuckey	(09)4038491	(09)4738556

Statutory Holidays

Every employee is entitled to not less than 11 statutory holidays each year, which should be paid holidays for the employee when they fall on days of the week on which the employee would normally work.

Statutory holidays are in addition to annual holidays.

Some of the statutory holidays are transferred to a Monday or Tuesday when they fall on the weekend.

An employee does not have to work on a statutory holiday unless his or her contract provides or he or she agrees to do this.

If employees work on a statutory holiday (except Anzac and Waitangi Days) they are entitled to another paid day off in lieu.

Special rules apply to Waitangi and Anzac Days.

Special Leave

After working for the same employer for six months an employee has the right to five days special leave for the next 12 months. They can be used for:

* sick leave
* to care for a spouse, dependent child, or dependent parent of the employee or of the employee's spouse
* bereavement leave on the death of a spouse, parent, child, brother, sister, grandparent, parent-in-law and also when the employer accepts that the death of any person means that the employee has suffered a bereavement.

Unused special leave cannot be carried over into the next year.

Employment contracts can provide for more than five days special leave.

Parental Leave

Under the Parental Leave and Employment Protection Act parental leave is available to employees who are having a child, and to their partners. It is also available to employees, male or female, who are adopting a child under five years of age.

To apply for parental leave you must have worked at least 10 hours a week for 12 months at the expected date of birth and for the same employer.

All forms of leave under this Act are unpaid.

Please contact your local labour inspector for details about Parental Leave.

Volunteers Employment Protection

Employees who do full time voluntary training in the armed forces for periods adding up to three months or less have their jobs protected.

To get protected leave under the Act employees must give notice to the employer 14 days before starting voluntary armed forces training.

Other conditions apply and you should consult your local labour inspector about them.

Personal Grievance

Employment contracts must include effective procedures for dealing with personal grievances. The Employment Contracts Act provides a standard procedure. This is part of every contract unless the parties negotiate an alternative procedure.

Disputes

All employment contracts must have effective ways to sort out disagreements about:

* what any part of a contract means or,
* how the contract should be applied or,
* how the contract should be interpreted.

A Little PR

by Ham Maxwell

A short while ago our local giveaway published an article about a family inundated by a swarm of wasps. Now you know and I know that wasps do not swarm like bees, so I considered calling the reporter to correct the article. On reflection I decided to let dead "wasps" lie. Dead, because an exterminator had wiped them out. Better the public should blame wasps rather than bees.

The following week a retraction appeared. The paper had been inundated with calls from indignant beekeepers, all eager to put things right. So the humble honey bee was finally seen by the public to be the culprit which drove a family from its home. Great publicity for beekeeping!

Fate plays a few tricks in our lives it would seem, because only three days after the retraction article appeared I received a call to gather a swarm of bees from, where else, but a tree adjacent to the newspaper office. Please check with the newspaper for the exact location. I checked. An eager young man showed me the location of the swarm, and asked if it was OK if he took a few pictures.

The swarm was in the tree right enough, up about 10 feet (three metres to the youngsters), and easy to get at from a step ladder. In less time than it takes to tell they were dropped into a cardboard box and the job was done. A good smoker applied to the tree branch persuaded them not to return to their resting place, but then the fun started. The young man wanted pictures, so it was back up the ladder, open the box, remove the veil, and look all photogenic. Great stuff. I felt like a movie star at a premiere because the street was lined with people who had appeared from nowhere, all looking at the nutter gathering the bees.

With the box closed again and on the ground all was serene, until the bees began emerging from the box. Soon the air was thick with bees. The smoker was still operative, so the surrounds of the box looked as if a major conflagration had burst forth. It did the trick however, the bees retreated back into the box, and I put the box in the van.

Naturally a few bees re-emerged from the box and clung. That intrigued the reporter. Surely I was not going to drive home with bees loose inside the van? So I asked him to note just where the bees were: only on the rear window of the van. With me at the other end of the vehicle, still wearing my opened veil, there was little chance of the bees being a nuisance whilst I drove home. The veil was insurance in case something went wrong.

I drove off, hived the swarm, and waited for the next edition of the newspaper. The article with a picture, filled half the page. It was suprisingly accurate, even though the heading referred to my being willing to drive with bees loose in the van. The tone of the article was, as I had intended, slanted toward removing the fear generated by the first article. Hopefully the local people would not now be so alarmed if they encountered a swarm of bees.

There was also a spin off from that article. Our club has since gained new members, people have phoned for advice about beginning beekeeping, and we have fielded enquiries about the difference between bees and wasps.

So if your local rag runs a 'fear' article about swarming bees, invite a reporter to watch you gather your next swarm. Stress that anyone who finds a swarm should contact a beekeeper. In this way we, as beekeepers, can build our public image in a positive way. Incidentally, I managed to slip in a plug for the club by saying: "It is not always possible to remove the bees if they are in a wall and the beekeeper may have to kill them off. In such a case a donation to the club funds was the right and proper thing for the owner of the property to do!

BEEKEEPING IN AFRICA

INTRODUCTION

Beekeeping is a means to both community development and the conservation of natural resources. It is a farming activity that does not require:
(a) the destruction of indigenous vegetation
(b) the use of biocides
(c) the disturbance of the soil (ploughing)

BEEKEEPING AS A SUSTAINABLE FORM OF LAND USE

Beekeeping is a low-consumptive and sustainable use of flora. Only nectar and pollen from plants are used. Overutilisation of these two resources is not possible: should the population of hives per unit area be too great it is only the honey production per hive that suffers.

Beekeepers have an interest in conservation of the protective vegetation mantle that covers the earth, since it is on this that their livelihood depends.

The only destructive practice is the making of hives from the bark of *Brachystegia* and *Julbernadia* trees in the miombo woodland belt of Central Africa. These are the very trees that yield the biggest crops of honey. Smith (1966) suggests that as it is old bark yielding trees which are destroyed there may be little effect on total nectar production since old trees may produce less nectar than medium aged trees. However the loss of these trees may pale into insignificance against the loss of huge areas of African woodland due to ever-increasing pressure of population.

Not all beekeepers are dependent on a healthy cover of *indigenous* vegetation. In South Africa the most important bee plant is an exotic tree, *Eucalypus grandis* from which commercial beekeepers produce 1000 tons of honey per year, (Billet, 1992).

These beekeepers are also conservation conscious since their bees may, at least for part of the year, be dependent on native plants.

BEEKEEPERS AND NATIONAL PARKS

National Parks and Game Reserves in Africa are often in areas of low agricultural potential or low rainfall. Some are in zones infested with the tsetse fly. i.e. Moremi Game Reserve, Botswana and Gorongoza National Park, Mozambique. This land was often set aside because (i) it was not settled due to unfavourable conditions for human habitation (ii) it housed remnants of African game herds that had survived due to the remote or inhospitable nature of the terrain. Many of these conservation areas may have good nectar and pollen resources. Beekeepers could be given permission to have apiaries within conservation areas. These apiaries could be placed on little-used forest tracks that are not frequented by tourists.

BEEKEEPING AND ECOTOURISM

Ecotourism is tourism based on natural resources. Many tourists come to Africa to observe, photograph, or hunt the wildlife. Just like beekeepers, tourists need healthy and sustainable used ecosystems. South Africa's foreign exchange earnings from tourism were R2.6 billion in 1990. Since September 1990 there was a 4.5% increase in the number of tourists to the country (Anon, 1992). The idea behind ecotourism then, is that cash brought by tourists to marginal rural areas can be used to benefit the impoverished communities there. The tourist dollars are therefore used to enhance development.

EXAMPLE: Tourists visit game parks in Africa. They therefore support employment in the lodges and game parks. However their dollars can also be used to encourage small business in the neighbourhood of the park. Examples of these self-employment opportunities that are based on natural resources:-

(a) Making charcoal for sale.
(b) Nurseries for sale of plants to both tourists and locals.
(c) Wildlife-based small industries = taxidermy, tanning, making of wildlife curios.
(d) Beekeeping.

Naturally, in such projects, success will be realized only if there is true community participation. The Madikwe project is an example of ecotourism where 71,000 hectares is being stocked with game. This was one of the few big reserves successfully motivated on a people come first basis. The main objective is to satisfy people's needs, but nevertheless conserve biotic diversity. Collinson (1992) asked the question: 'Will this be a precursor to large areas of cattle ranching land being converted to game reserves based on ecotourism?'

BEEKEEPING AS A SMALL RURAL INDUSTRY

Beekeeping has many advantages as a means for community development. It does not compete for resources with other types of agricultural activities. Pollination of agricultural and tree crops occurs. Fruit and seed crop harvest is increased provided there are sufficient numbers of bees for pollination.

Yields are often doubled or even trebled and bigger and better shaped fruit is borne on well pollinated flowers, (Smith, 1966). There is a low capital input. Local raw materials can be used to make hives cheaply. Passing swarms can be decoyed to stock empty hives. Costs of processing the crop are low.

Not much time need be spent on beekeeping. Started on a small scale and using simple methods, it can be a spare-time occupation. As money becomes available it can lead on to a full time occupation using more sophisticated and profitable methods (Crane, 1983).

Honey flows often occur during the dry period when the work load of other agricultural activities is at a low ebb. The honey harvest at this time of dearth, brings a welcome source of good to the family.

No land need be owned. Bees can be kept on land belonging to others or on public land.

Cash income can be realized by selling the crop of honey and beeswax. Both these products are non-perishable and usually scarce. These products are also of high value.

A few hives of bees often provide a low-income peasant farmer with more income than his main occupation deliver, (Crane, 1983).

Beekeepers usually stay very healthy by eating larvae, pollen and honey or by drinking mead.

A peasant who learns the skills of beekeeping may find that his dignity, self-respect, self sufficiency and social status have all be raised. (Svensson, 1984).

Beekeepers are botanists who know the local flora. They are environmentalists since they wish to keep the trees. They may influence others to care for the vegetation. This conservation awareness will benefit the community.

HOW COMMERCIAL BEEKEEPERS CAN HELP TO PROMOTE COMMUNITY BASED BEEKEEPING:

Where commercial beekeepers operate in countries that have high levels of unemployment and poverty, they are bound to be plagued by theft. This is so for the South African beekeepers that produce the country's annual honey harvest of 3,200 tons. Many have been forced out of business as they have been unable to weather the continuous loss of honey, hives, and bees. How can these beekeepers try to reduce theft and at the same time assist in setting up community based beekeeping? Perhaps people can be selected from the local populus to act an apiary guards. At the same time these people are then taught the skill of beekeeping. For this purpose some transitional top bar hives could be placed amongst the frame hives.

An example of this sort of symbiosis is provided by C.J. Coleman in Zimbabwe. In Zimbabwe traditional beekeepers use miombo woodland as a resource, while South Africa has no tradition of beekeeping, being relatively poor in good, reliable indigenous bee plants. Beekeeping among the peasant farmers of Mashonaland and Manicaland is traditional. The difficulty is the marketing of the products. Honey is heavy and the population centres are far away. This is where the commercial honey producers can assist - they visit the peasant farmers' bee clubs every two months to collect their honey harvest. The peasant farmers are paid on the spot, and the commercial farmer has the headache of transporting and marketing the honey.

More is paid for quality honey and this financial incentive is beginning to work. According to Coleman, the best club in the Mutare area produced two tonnes of quality honey in 1991, an increase of 300% over the years before. This club now uses the top bar hives that Coleman gave them (Wilson, 1992).

INDIGENOUS FLORA IN AFRICA AS A NECTAR AND POLLEN RESOURCE

Countries in the full tropics could increase their honey production to twenty to fifty times their present level, or more, (Crane, 1983).

Poulson (1981) suggested that it may be that less than one thousandth of the potential for honey and wax production is being utilized in Africa. He decided that the existence of beekeeping is more culturally decided than occasioned by a good local potential in respect of nectar producing vegetation. This may be so, but it has been proven in Botswana that beekeeping can be introduced to people who are not traditionally beekeepers.

HONEY POTENTIAL IN AFRICA

Honey potential is a term in common use in Eastern Europe for the estimated weight (kilograms) of honey that could be harvested in the course of a season from one hectare of land covered with a certain plant, assuming optimal condition (Crane et al, 1984). This definition is unsuitable for use in African conditions where yields are likely to erratic, following the rainfall pattern. More realistic would be the average honey yields (kg/ha/annum over a three to five year period, and for a specific vegetation type, ie miombo woodland or *Acacia* savannah. Wax potential figure must be included).

Why is it necessary to know the average honey and wax potential of vegetation types? One needs to be armed with such information in order to present a case for the multiple use of natural or near natural areas in a way that does not result in deforestation or ecosystem destruction. Crop scientists know what will be the estimated harvest/hectare/annum when they submit plans for use of the land. In the same way land use planners need to have access to average honey and wax potentials for different vegetation types.

It is important to remember here that honey and wax are just two of many products that can be harvested on a sustainable basis from natural ecosystems. Poulson (1981) gives a long list of important African forest products: gums, beverages, chemicals, fibrous materials, fodder, oils, mulch, stimulants, resins, pharmacueticals and vegetable foods. Omitted was venison and many other animal products.

EXAMPLE OF AVERAGE HONEY AND WAX POTENTIAL

(a) Mountain (1972) gives an estimate for a flow from aloes (*Aloe mutans* and *Aloe greatheadii* var *davyana*) in the Pienaars River Area, north of Pretoria, South Africa. Harvest is 150,000 kg in 50,000 ha over ten days of main flow, but with three weeks build up. Strong colonies are transported to the area for the flow, then removed after the flow.
AVERAGE HONEY POTENTIAL: 3kg/ha/annum
AVERAGE WAX POTENTIAL: 45 grams/ha/annum
(Where frame hives are used, beeswax yield is about 1.5% of the honey yield).

TYPE OF HIVES USED IN A PROJECT

Hive design will be determined by the project goal. If the goal is to increase life quality among rural peasants, the low cost traditional system will be best. In Zambia bark hives beekeeping was more profitable than top bar of frame hives in terms of daily income gained from beekeeping (Wainright, 1988).

However where no traditional beekeeping exists (as in South Africa) top bar hives would be a wise choice.

Hive design will determine relative quantities of honey and wax obtained. Modern frame hives will maximise honey production, but only 1 or 2% as much beeswax as honey is harvested, since the beekeeper uses the honeycomb over and over again. Traditional hives gives less honey but more wax: about 8% as much wax as honey.

In Egypt most honey used to come from horizontal mud pipe hives. In 1973 a modernization programme started and frame hives were promoted at the expense of traditional hives. The result was that in 1982, Egypt had changed from a nett beeswax exporter, to become an importer, (Crane, 1986).

CONCLUSIONS

(a) Beekeeping is a passive, ecologically sound form of land use.
(b) It is possible with beekeeping to:-
  (i) use land productively
  (ii) preserve biotic diversity
(c) Beekeeping should be part of Ecotourism projects
(d) Traditional beekeepers should be empowered to take responsibility for the conservation of their own floral resources.
(e) Commercial beekeepers have a role to play in assisting aspiring peasant beekeepers.
(f) Beekeeping should be promoted as a visible small rural industry.
(g) Nectar and pollen sources in developing countries are generally underutilized.
(h) Knowledge of average honey and wax potential is useful when promoting more sustainable land use practices.
(i) Type of hive used will be determined by the project goal.

LITERATURE CITED IN THE TEXT

Anonymous. Simplied beekeeping with bark hives. Zambian Forest Department Production.

Anonymous. 1992. Cashing in on change: the importance of tourism to S.A. economy is finally recognized. Financial Mail. July 17, 1992. p47.

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American Foulbrood Disease. Part IV. Control.

by Mark Goodwin

In order to manage colonies to reduce American foulbrood (AFB) disease levels it is important to understand one basic concept. This is that most AFB infections of colonies are due to beekeeping practices. If your disease levels are remaining stable you are probably infecting clean colonies at the same rate that you are finding and destroying diseased colonies. You can alter the disease situation of your hives for better or worse by either modifying the number of effectiveness of your disease inspections or changing management practices which may either increase or decrease the rate of spread of the disease. For example a change in any of the following may affect disease levels.

Disease inspections

* The percentage of brood frames inspected
* The location in the hive of the frames inspected
* The frequency of inspections
* Whether the bees are shaken off first
* Ability of the inspector to identify disease larvae
* The timing of inspections.

1. Hive Management

* Amount of brood shifted between hives
* Exchange of wet or dry supers between hives.
* Frequency of robbing and drift
* Use of feed honey
* Speed with which diseased hives are destroyed
* The methods used to sterilise equipment.

The preceding lists are of course not complete but provide an idea of the complexity of the issue. The importance of each increase with the overall disease incidence. For instance increasing your disease incidence five fold from 0.5% to 2.5% might be painful however increasing it from 5% to 25% might be disastrous.

The list also demonstrates that there are a large number of factors that can be worked on to reduce disease levels. The choice of which are selected probably depends on the importance placed on reducing disease levels.

There are a number of possible options for inspection programmes and hive management.

INSPECTIONS

The first step is to ensure that you and your staff can recognise a larva with American foulbrood disease.

The first basic rule in inspecting colonies is that you cannot inspect brood frames for disease unless you shake the bees off first. The second rule is that the more brood frames you check the more likely it is that you will identify an American foulbrood infected colony. Although they take a lot of time, complete brood inspections are a very valuable tool.

Obviously the more frequently you inspect colonies the greater the probability that you will identify any diseased colonies that are present. However there are certain times when failure to identify a disease colony may prove to be particularly expensive. Such as when you are removing something from a hive that may be placed in or on another hive. e.g. brood, honey supers, bees or empty supers. It is best to target your inspections for these times. If your hives have a disease problem probably the best advice that you will get is to do a complete brood check before you remove anything from any hive, especially when you are removing honey supers. It may be a pain in the neck when you are trying to take honey off however it might save a lot of work burning hives later on.

One solution to the problem of trying to inspect at the same time as you remove honey is to number all your hives. This can be done quickly and cheaply with a felt pen. The number would only have to last a few weeks. When you remove your honey supers don't inspect for disease but write the number of the hive on every box as it is removed. Then come back and do a complete brood check before you extract the honey. Any boxes from infected colonies can then be removed as it turns up at the uncapper.

This said there are of course the legal requirements. This are to inspect, or have inspected, your colonies between the 1st of August and the 30th of November each year and to report any AFB found forthwith, along with sending in a statement of inspection including the yearly hive totals by the 7th of December. I am always surprised by the number of beekeepers I hear of that are in contravention of the act and do not report disease forthwith. If you read the act you will see that the notification must be in writing.

2. Culture tests

Colonies can have AFB disease without exhibiting any clinical symptoms[2]. It is possible to test samples of bees or honey from colonies for the presence of spores to indentify these colonies[1]. If a colony returns a positive test for AFB disease it should receive a complete brood check as soon as possible. If diseased larvae are found it must be destroyed. If no clinical symptoms of the disease is found it should be marked so it can be checked regularly.

If the overall incidence of AFB disease does not warrant the expense of testing every colony individually then composite samples of bees or honey (collected during extraction) could be taken from each apiary and tested. This information could be then used to target further inspections.

HIVE MANAGEMENT

There are three main types of management that can be usefully applied to controlling disease problems. These are hive, apiary or area quaratines. They all serve to limit the impact of hive management on the spread of AFB.

1. Hive quarantine

This is where each colony is managed by itself with no interchange of equipment between hives. It is usually only employed where there is a significant risk of anything that swapped between colonies being contaminated with AFB spores.

An example of this might be where a beekeeper has a 20% AFB incidence. The programme would consist of numbering every floorboard whether or not it is in use. This can be simply done by nailing a small sheep eartag on each flight board. When this is done every colony will have a unique number. From then on no equipment is swapped between colonies. Queen excluders, feecders, division boards etc either stay with the hive or are numbered when removed, extracted and the same frames placed back in the same super.

These are returned to the same hive in the spring.

This process is obviously very time consuming and requires the beekeeper to be very organised. However it can and has been used for commercial beekeeping operations and can have dramatic effects on reducing disease levels. Assuming all the available equipment is used on hives each year, comprehensive inspection and hive quarantine programmes are employed and these are few ouside sources of spores such as feral colonies, it should be possible to eliminate American foulbrood disease from an outfit in a couple of years.

Hive quarantines could be used for colonies that return a positive culture test but have no clinical disease symptoms. If there are a number of hives testing positive they could all be moved to the same apiary to reduce the possibility of them cross infecting other colonies.

2. Apiary quarantine

This is where each apiary is managed separately. This type of quarantine has been employed by beekeepers with a wide range of disease levels in their hives. Any equipment from an apiary is coded in some way and always remains with that apiary. It has the advantage that it is much less time consuming than a hive quarantine but can still be very effective. It is used as a matter of routine in some operations. If an AFB problem develops it will probably only effect the colonies in one yard rather than affecting the whole outfit. Some beekeepers use a modified system whereby they quarantine any apiary where an AFB hive is found and keep it in place until the apiary has been free of AFB for a specified time, possibly two-three years. Interestingly if you find an AFB hive in an apiary you are legally required to not remove anything from that apiary without the consent of an inspector.

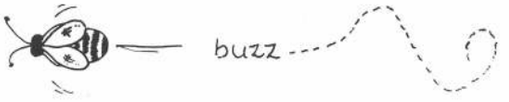
3. Area quarantine

This might consist of dividing an operation into two such as those apiaries with a recent history of AFB and those without. The two parts are managed separately with no interchange of equipment between parts. Apiaries may be added to the AFB free part if they remain free of AFB for a certain length of time or added to the AFB part if a colony develops AFB.

CONCLUSION

Probably the most effective way in which you can combat American foulbrood disease in your outfit is to conduct a complete brood inspection before you remove anything from a hive and reduce the exchange of equipment between colonies as much as possible.

1. Goodwin, R.M.; Perry, J.H., Hain, H.M. 1993: American foulbrood disease Part 1: The incidence of American foulbrood disease in New Zealand. *The New Zealand Beekeeper Autumn:* 19-20.
2. Goodwin, R.M.; Perry, J.H., Haine, H.M. 1993. American foulbrood disease Part 2: Subclinical Infections. *The New Zealand Beekeeper Winter:* 7 - 9.



THOUGHTS ABOUT HEALTH FOODS

from George Nichols

We have made a big mistake in marketing "pure" honey while the rest of the food market has gone in for expensive additions and subtractions.

Let us try some additions, how about pollen? We can shake a very obvious dusty layer on top of our pots from the local pine trees or privet bushes. How about vitamin enriched honey? Our diet is already loaded with too much of everything including vitamins, yet the local chemist's shop will gladly sell us an even greater excess which, luckily, passes straight through us. Not the fat soluble ones.

Then we can put royal jelly into honey and add a rumour on the label hinting at male fertility. As an alternative to royal jelly for the Far Eastern market we can add ground up deer horn, or even rhino horn if the Auckland zoo will oblige. I will offer to lend them a suitable rasp but I am not very certain if I have time to help with the job. Honey toffee with propolis should sell well, then cappings' wax could be added though I am not sure what for but the faddy feeders can, no doubt, find something marvellous. A brilliant thought suddenly struck me, we must add bran to our "Regular" honey. Another additive which might be tried is hydrogen, long ago when I was a student we added hydrogen to vapourised cottonseed oil using a nickel catalyst and margarine came out of the end. Now margarine has a reputation for being entirely "Natural" whatever that means so we could try adding hydrogen to hot honey to see what happens.

The other end of the food fad market extracts most of the nutriment from food - no cholestrol - no kilo calories - no - fat - sugar reduced. Can we extract laevulose or dextrose from honey, sell the resultant remains at an inflated price and then sell the laevulose or dextrose back to the gullible public, this is rather like selling a nationalised industry back to the tax payer who thought he already owned the industry. In the extreme case we could sell honeyless honey water with only the smell remaining. Slimmers take note, you can be slim enough to wear your daughter's knickers!

Now, here are some suggestions for advertising our products. We must have television advertising programmes with extremely healthy young women who, for some totally unknown reason, know facts about honey which are hidden from men. This would go down well in Womens' Suffrage Year. For royal jelly honey we need a nubile young woman having a romp with a elderly beekeeper. Voice from behind my back "That's just wishful thinking, be your age George." " That's the trouble, I am my age!"

Finally a short poem: (voice from the back "Oh good, we've got there at last.)

On Diet

Cholestrol is poisonous so never, never eat it.
Sugar too may murder you, there is no way to beat it.
And fatty food may do you in, be certain to avoid it.
Some food is rich in vitamins but processing destroys it.

WATCH WHAT YOU EAT

by Ham Maxwell

Our community is not a large one, big enough for some people to be strangers, yet not teeming with people going every which way. The shopping area reflects this fact of life and you can walk up the side of the main street and back down the other in a little over 10 minutes, assuming your neighbour does not bump into you as you pass the doorway of a shop. For some, going to the shop is almost a way of life. Other detest the necessity at having to run into town to buy the essentials without which we believe we cannot survive, Fred tends to match up with the latter category, but even he admits that the "shops" have a role to fulfil in his life.

Being the handyman that he is requires some ingenuity from time to time, but where thought fails to overcome the lack of materials then necessity drives Fred to town to purchase whatever the latest project requires. So it was with the new project which was started easily enough but ground to a halt when nails were found to be in short supply. No relishing assembling hive supers with screws, he put aside that work and carried on cleaning up several boxes of frames for the rest of the weekend. In the back of his mind he was sure that the missing nails were located somewhere in the workshop but a thorough search failed to locate them. He would go down first thing on Monday morning to get some new nails.

Rising early on Monday saw Fred ready on the doorstep of the local hardware store at 9am. Having waited some 10 minutes he became concerned that the shop had failed to open for business as usual, and peered through the windows to see it anyone was in there. Odd, no sign of activity within the shop, no lights on, nothing. After waiting a few more minutes he moved along to the bakery next door, entered the ship and enquired if they knew why the hardware shop next door was not open for business. The baker had not realised that the next door shop was unattended, and returned with Fred along the pavement. He, like Fred was puzzled, as the hardware owner was known to be a punctual man and these events were really out of character.

He knew the home address of the shop owner and Fred decided to nip round to see if he was still at home, he had to pass along the street anyway on his way home. Before leaving, got the baker to phone the hardware owner's house, but there was no reply. On arrival at the given address Fred saw a ute parked at the head of the driveway at the side of the house, parked his truck, and walked up the drive. His knock on the door was not answered, nor were subsequent knocks, but he thought he heard something "bumping" in the house. This made him curious, so he promptly walked along the side path to the rear of the house, and knocked on the back door. No one came in response to the knocking, but this time he was sure that the "bumping" was definitely there and louder.

Suddenly a loud voice, female variety, wanted to know just what he was doing. "before I call the Police!". It came from over the fence to his left, and on looking in that direction he beheld a rather stern looking woman partly leaning from an open window. Fred is not one to be intimidated easily, so he moved slowly from the doorway over to the fence separating to two properties. He explained the series of events which had brought him there and enquiries if the lady was aware of any reasons why the owner of the hardware shop had failed to open up the shop that morning. She had no explanation, but ventured that the owner must be home as the ute was still parked up the drive.

At this Fred told her to call the Police and returned to the house. The audible gasp from the woman showed she had really taken fright and she disappeared smartly from the window. On trying the door Fred found it to be unlatched, so gently opened it and peered inside, to see a foot part way across an internal doorway, and it was this foot which made the "bumping" sound, as even as Fred watched, the foot moved and was raised slightly and then fell to the floor. Obviously something was amiss with the owner of the foot, so Fred cautiously moved into the house, and located a man, fully dressed, lying of the floor at the kitchen. He was only partially conscious, and spasmodically moved as his consciousness came and went. Fred looked him over, decided that help was needed, and used the phone to call an ambulance.

A very loud voice, male, suddenly told Fred to stay right where he was, and just what was he up to the voice wanted to know. There in the doorway was the biggest policeman Fred had ever seen, he made Fred seem to be average height and weight, and Fred is no small chappie. With this disturbance the man on the floor stirred alarmingly, and began to mutter something, the fellow on the floor needed medical help and did the cop know anything that they could do? The policeman used his radio and soon confirmed the ambulance call, and then in walked the crew from the ambulance and took over the patient. As they attended to him they told the policeman that the man was muttering the word "Honey" over and over. What did it mean? Obviously the policeman was baffled, and could offer no explanation.

Fred had been glancing around the room and looked over the uncleared breakfast table. In the middle of the jumble on the table stood an opened pot of honey, and only newly opened at that. Suddenly he knew what the ill man was trying to tell everyone, the honey had affected him. He promptly offered an explanation to the ambulance officers and was looked at somewhat ashamed. Poisoned honey? Don't be daft. Normally anyone making remarks like that to Fred is asking for real trouble, but this time all Fred did was to clear his throat and again offer an explanation, more slowly this time, and only when he used the word Tutu poisoning did any recognition show in the eyes of the ambulance officers. They in turn promptly radioed their base and requested advice on resusitation of a victim of Tutu poisoning. In the interim they rapidly prepared the patient for transfer to hospital, then promptly whisked him away.

Fred meantime had looked closer at the honey pot, and as he expected, it bore no commercial label, only an ink penlabel saying 'Honey'. The policeman was obviously still mystified by this turn of events and wanted an explanation from Fred. Once he understood the import of Tutu poisoning be became a little more affable, but gently reminded Fred that he had entered the premises without invitation, and would Fred like to come down to the Police Station and help sort the whole situation out?

Naturally Fred obliged, could he do otherwise? The victim recovered from his dose of Tutu, and it turned out the honey came as a gift from a relative

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Beekeeping in Africa

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Billet, R. 1992. Save those gums for the bees. Farmers Weekly. Jan. 10 1992. p45.

Collison, R. 1992 Personal communication at Third International Symposium on Wildlife Ranching, Pretoria.

Crane, E. 1983 Beelines for development. International Agricultural Development. May/June, 1983 p 9-11.

Crane, E. (ed) 1986 Tropical and sub-tropical apiculture. F.A.O. Agricultural Development. May/June, 1983 p 9-11.

Crane, E, P. Walker and R. Day 1984 Directory of important world honey sources. I.B.R.A. London.

Mountain, P. 1972 Honey production in South Africa. American Bee Jnl 12 (11): 408-410.

Poulson, G. 1981. Important forest products in Africa other than wood and wood extractives. F.A.O. publication.

Smith. F. 1966 Beekeeping as a forest industry. E.Afr Agric. and Forestry Jnl. 31. 350 - 355

Svensson B. 1984. Personal communication. Course in tropical beekeeping. 19-21 Oct. 1984, Sweden.

Wainright D. 1988. Socio-economic comparison of beekeeping technologies. Abstracts from Fourth Int. Conference on Apiculture in Tropical Climates Nov. 1988 Cairo.

Wilson. M. 1992 Promoting beekeeping for small farmers. Farmers Weekly. June 26. 1992.

Original Olde Norfolk Punch

Benedictine Monks first took possession of Welle Manor in 974 A.D. and its great value to the monks at that time was the well in the grounds of the manor. It was from this well that Welle Manor and the village of Upwell derived its name, it was also from this well that the herb gardens were established by the monks, which were the basis for the various potions and balms which were administered to the local populus , for they were as concerned for the physical well being, as well as the spiritual well being of their flock.

Throughout the Middle Ages everyone relied upon the curative properties of herbs for the relief of their ills, including Lowness of Spirits. Thus Norfolk Punch evolved, until the time when Henry VIII dissolved the monastic orders and confiscated their properties. Fortunately the monks, who were one of the few educated groups were able to record the formula of Norfolk Punch.

This formula lay hidden for centuries along with many other historical documents relating to Welle Manor Hall, until its discovery in 1980 by Eric St. John-Foti, who had purchased Welle Manor Hall in order to begin the long process of restoration on this magnificent old building.

The process of reviving Olde Norfolk Punch took many years perfecting in order to keep to the ancient recipe.

The qualities of the herbs used in Norfolk Punch, have been recorded by writers of antiquity, which include the following:

'Eases the headache.'
'Marvellously do help all cold and rheumatic distillations of the lungs and other parts.'
'Kills worms in the belly.'
'Preserves from drunkeness.'
'Do help consumption, old coughs, shortage of breath and the megrim.'
'Warms and comforts a cold stomach.'
'Helps digestion and is a remedy for surfeit.'
'Helps weariness and pains that come by sore travelling.'
'Mightily expell the wind from those who suffer with it.'
'Seven doses do cause a speedy delivery in childbirth.'

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These are carefully ground by hand, in accordance with the ancient formula, in a stone mortar with a pestle.

The formula also calls for picking certain herbs at particular phases of the moon.

Norfolk Punch gets its name from the 80 gallon "Puncheon in which it was originally made.

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Following many requests for Norfolk Punch to be made available in Australia bottling commenced in Kendall, N.S.W. in 1989 by one of Eric St.John-Foti's sons.

---

who had recently taken up beekeeping as a hobby. The hives were located in a restricted MAF area, but no one had told the new beekeeper of the limitations of cropping honey in a restricted area. The hives were not registered with MAF, and the beekeeper who supplied the bees to the fledgling beekeeper "forgot" to mention that the area was a restricted zone.

Fred in the end was a bit put out by the whole thing as he was initially suspected of being a common burglar, because the loud-voiced lady had reported a burglary in progress. The owner of the hardware shop came around to see Fred at a later date, duly thanked him for his help and on finding out the original reason for Fred going to the shop returned next day and presented him with a whole box of nails as a thank-you gift. They got to be good friends, and just yesterday Fred helped his new friend set up a new beehive in his backyard. The hardware man still loves his honey, but has vowed that from now on he will only eat honey when he knows the area from which it originated. Our area is free of Tutu trees.

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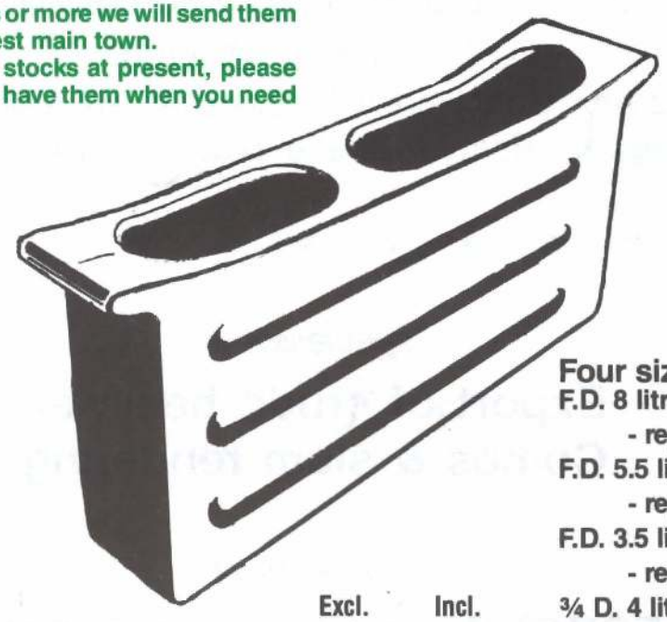
*** For orders of 30 feeders or more we will send them freight free to your nearest main town.**
Although we have good stocks at present, please order early to ensure you have them when you need them.



Four sizes
F.D. 8 litre
- replaces three frames
F.D. 5.5 litre
- replaces two frames
F.D. 3.5 litre
- replaces one frame
¾ D. 4 litre
- replaces two frames

PRICES		Excl. GST	Incl. GST
F.D. 8 litres and F.D. 5.5 litres.....	each	9.42	10.60
.....	10	85.78	96.50
.....	100	790.00	888.75
F.D. 3.5 litres and ¾ D. 4 litres.....	each	8.71	9.80
.....	10	79.20	89.10
.....	100	750.00	843.75

MANUFACTURED AND DISTRIBUTED BY

Ecroyd Beekeeping Supplies

26B Sheffield Crescent, Burnside, Christchurch
P.O. Box 5056, Papanui, Christchurch, New Zealand
Telephone (03) 358-7498 or Fax (03) 358-8789
Hours 8.30am-5.00pm Monday - Friday