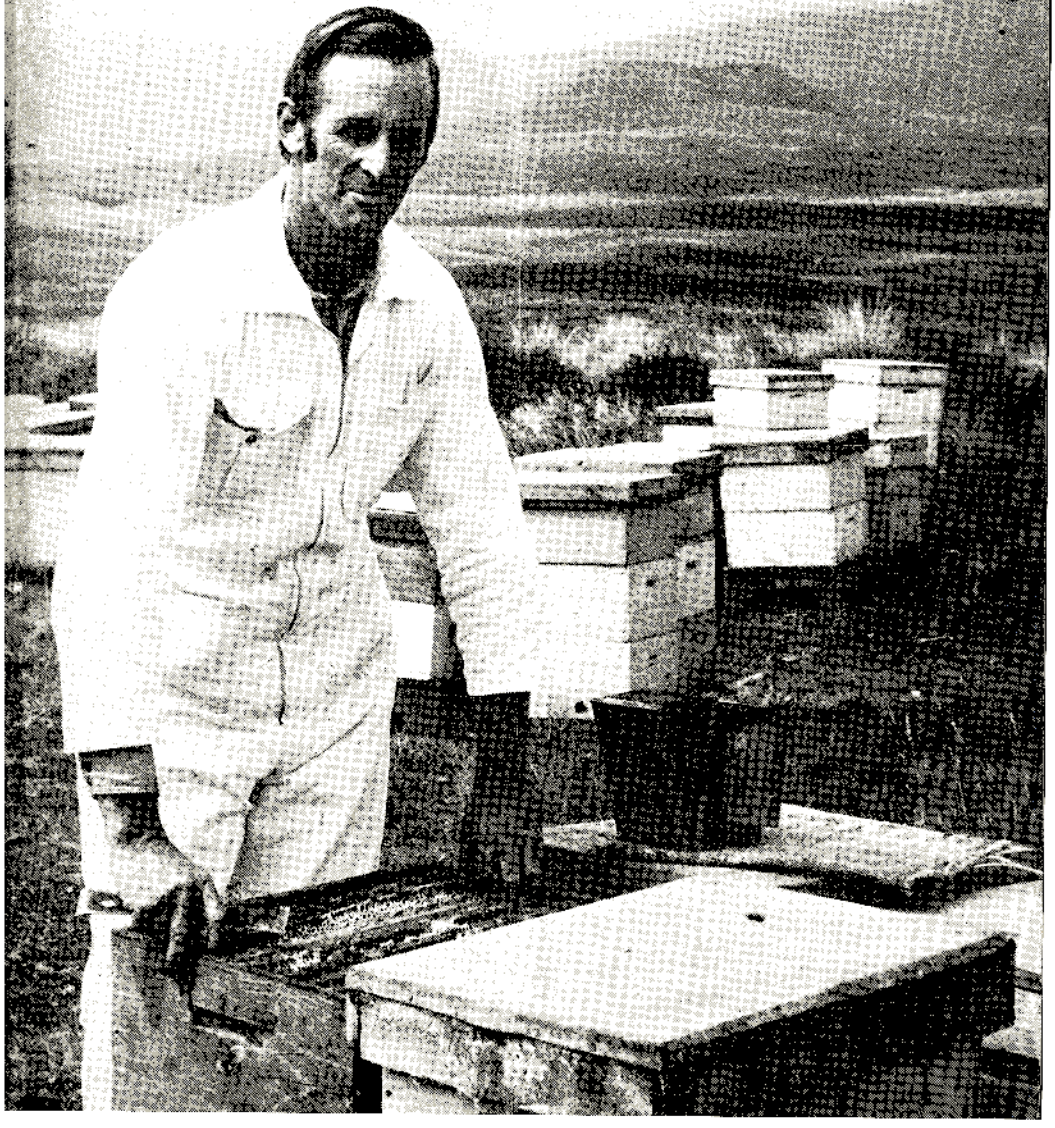
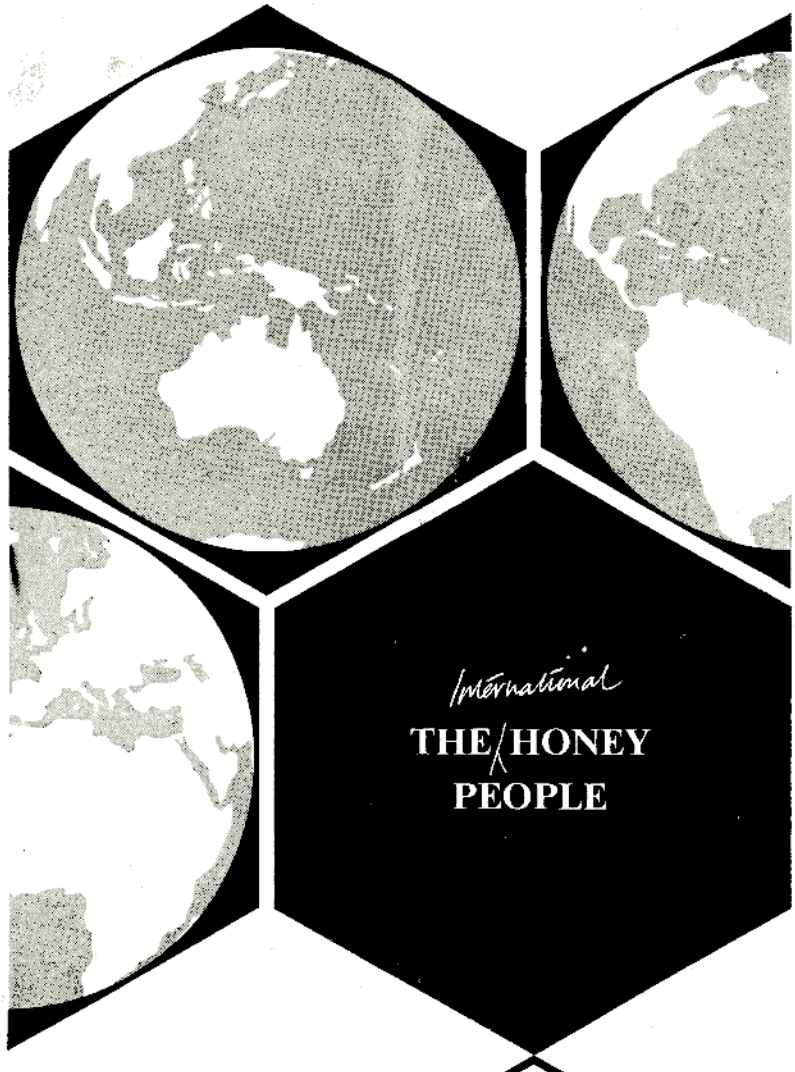
THE NEW ZEALAND BEEKEEPER

August 1974





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THE NEW ZEALAND BEEKEEPER

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Editor: Norman S. Stanton **AUGUST, 1974**

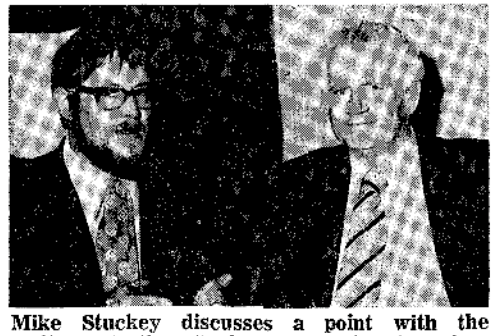
CONTENTS

New Levy Scheme

Conference, in an about face, has effectively rescinded the Nelson 1973 Levy Scheme on which a great deal of prepatory work had been done by both the Executive of the National Beekeepers' Association and also the Honey Marketing Authority.

It is to be hoped that the cost to the industry in time taken to implement the new Hive Levy is balanced by its effective operation. I doubt if the industry can afford another change of horses next year.

However, there is one benefit to the industry which is common to both schemes. By making members' contributions to the N.B.A. deductible from



Mike Stuckey discusses a point with the Editor at the Conference Social Evening.

Levy payments, Conference has effectively devalued non-membership.

As I see it, the great need in this industry over a very long period has been for unity and co-operation. Perhaps the Hive Levy will be a step towards this goal because it does not appear to have any sectional interests inherent in its operation.

Honey Prices Overseas

We are fortunate indeed that about two-thirds of the N.Z. honey crop is being sold on the local market. The present uncertainties of the world economic situation are having an unpredictable effect on overseas honey prices. This effect is not as drastic as in some other primary industries. Present demands for devaluation will not help the situation.

The latest export price quoted by the Australian Honey Board is $580 per tonne for their light amber grade. This is $80 less than the quotation for the same grade 12 months ago. The same source is quoting 1 lb jars of clear honey at $5.39 per dozen wholesale ex store Brisbane for the local market.

Conference 1974 Palmerston North

The various Reports and Addresses presented to Conference are printed in this issue. Pertinent points in the debate on the Remits to 1974 Conference will be precsnted in November issue of "N.Z. Beekeeper".

The 1974 Beekeepers' Seminar

The 1974 Beekeepers' Seminar held at Taupo, August 13-15 was highly successful. Most papers were of a high standard and were presented in a most capable manner.

It is planned to produce a xeroxed copy of the seminar proceedings, and this will be circulated to all those who attended. It is proposed to publish material about this Seminar in the following issues:

NOVEMBER ISSUE (Theme: Honey Marketing)

1. A report on the Seminar.
2. The marketing of honey: —Mr A. B. Ward, Massey University
3. Marketing honey within New Zealand.
   (a) Mr C. Wicht, Manager, N.Z.H.M.A.

(b) Mr D. L. Ward, Dannevirke.
(c) Mr M. Stuckey, Auckland.

4. Marketing honey overseas:
   (a) Mr R. Poole, Chairman, N.Z.H.M.A.
   (b) Mr P. Berry, comb honey exporter.
5. Packaging and labelling of honey: —comments by the Health Department.
6. The consumers, action and reaction to the honey pack: —Mr P. Dickson, Waikato University.

FEBRUARY, 1975 ISSUE (Theme: Honey, its Quality and Processing)

1. Codex alimentarius: —The international standards for honey,— G. M. Reid AAO, Christchurch.
2. Honey quality in New Zealand, C. G. Rope, Honey Grader.
3. In and about the honey-house.
   Selected topics—
   (a) Honey-house flooring, Mr R. H. Hobbs.
   (b) Shifting in the honey-house, Mr D. A. Briscoe.
   (c) Honey-house design, Mr G. M. Walton.
   (d) Methyl Bromide fumigation, Mr B. M. Milnes.
4. Honey-house Hygiene and the Health Department:— Mr C. L. Barker.
5. "Honey through the ages"
   The Bee Research Association Commemorative Lecture:—
   Mr E. Roberts.
6. Nosema in New Zealand:— Mr G. M. Walton.

MAY, 1975 ISSUE (Theme: Honey Production)

1. Utilizing Our Bush Honey Areas:
   Mr R . L. Jansen (migratory beekeeper)
   Mr J. E. Rodie (Apiary Instructor)
   Mr G. M. Reid (South Island A.A.O.)
2. Handling Manuka honey:
   Mr P. Pegram (commercial beekeeper)
   Mr M. Haines (commercial beekeeper)
   Mr G. M. Walton (A.A.O. Palmerston North)
3. American Foul Brood, the B.L. Situation
   Mr B. M. Milnes
4. Toxic Honey — the present situation — Mr D. A. Briscoe.
5. Recent Work by Wallaceville — Mr I. W. Forster

CONFERENCE 1974

Palmerston North — July 17-19, 1974

Welcome To Conference

By Kevin Morris, South Western Districts

Your Worship, the Mayor, Ladies and Gentlemen,

It gives me great pleasure to welcome you all again to the Annual Conference of the Association. It is one of those occasions that remands me of a saying that that great old man Confucius had and that is: "It is great to be among friends, even if those friends aren't your own".

Your Worship, I trust that the moisture that is descending upon us this morning is only necessary for the refreshment of all the areas of parks and trees that is apparent in the city and that you will endeavour to show us the the real beauty of the city.

The South Western Districts Branch of the Association, who are hosting this Conference are a very young Branch, but, as the last two Conferences of the Association have shown us, they are indeed an active Branch, and it is a credit to them that they accepted the hosting of a Conference.

Your Worship, it now gives me great pleasure to invite you to welcome delegates to your city. Ladies and Gentlemen, His Worship the Mayor, Mr Elwood.

Opening Of Conference

By B. G. C. Elwood, Mayor of Palmerston North

As I did my research to enable me to address your conference today, I wondered how many New Zealanders had ever stopped to think about the industry which produces honey—a popular food in this country. As I see it, your industry is efficiently controlled and effective, but above all, is an industry based on an essential byproduct of its existance, namely an invaluable pollinating service for agriculture.

While most of us would be conscious of the delightful quality honey produced by your industry, and we can measure your direct production in terms of money, yet it would be hard for us to place a money value upon the indirect benefit which the bees, under your control, bring to the total agricultural scene in New Zealand. I said your industry was controlled. It clearly is, rigidly and effectively controlled under the provisions of the Apiaries Act of 1927. You are told how to keep your bees. You must allow your hives to be inspected by officers of the horticultural division of the Department of Agriculture and Fisheries. But whilst there is control and regulation, Government has

appeared very willing through its research services at the Wallaceville Animal Research Station, to give your industry the substantial aid which it needs to maintain it at a high level of efficiency. Your industry is therefore able to satisfy New Zealand's consumption demand, whilst at the same time creating a significant exportable surplus.

Since 1958 the value of your industry's exports has increased significantly. Whilst New Zealand's consumption which is high by world standards at over 5 lb per head of population per year, the real future of your industry obviously lies in the exploitation of export potential. I have been pleased to read not only of Government help to your industry, but of Government's recognition of the co-operation of New Zealand beekeepers through this association to maintain a fully efficient industry.

So you meet in Conference to talk and discuss the efforts that you will make in conjunction with Government to cope with new problems facing your industry. It is hard to see that the production of honey will ever revert to the primitive and wasteful methods that were applied until the Langstroth hive was introduced towards the end of the 19th century.

The very fact that your Association has continued to flourish indicates that there are still challenges ahead of the industry which, once solved, will be of

Mr Ivan J. Dickinson, President of National Beekeepers' Association, presents an acacia tree to the Mayor on behalf of the City of Palmerston North.

benefit not only to individual beekeepers, but to New Zealand's leading role as a producer of fine food in the South Pacific. With an innovative flair for marketing, it may not be too much to expect a ready market in the hotels of Sydney, Bangkok, Hong Kong and Tokyo, of New Zealand honey spread on New Zealand butter, placed on New Zealand bread. Your industry's efforts in conjunction with the Dairy Board could provide a prestige promotion for New Zealand's role as a major food producer.

As I thought about your industry, I thought about the real workers. The little bees of the species **Apis Mellifica**, so easily destroyed by many chemicals. The little bee which is so important to the seeding of white clover, to fruit trees and many other crops, deserves all the protection possible from the effects of harmful chemicals. One authority estimates that for each dollar's worth of honey or wax obtained from honey bees, about twenty dollars' worth of seeds and fruit have been produced by pollination.

Your industry in its own small way has its challenges, its problems and its rewards — those which face all agricultural industries in New Zealand. Careful breeding to produce improved strains; research to improve quality and quantity of production; new methods for extracting, processing packaging the product; and a co-operative marketing authority for distributing and selling your exportable surplus.

When next I go to the corner store to buy a replacement pound of honey, I will have a greater appreciation and awareness of all that is involved in your industry, and the thanks due to you all by the honey consumers of New Zealand.

Address To Conference

By Bruce Barclay, Under-Secretary to the Minister of Agriculture and Fisheries

There have been many committees of inquiry into the marketing of honey. I should like to refer to the Committee which investigated honey marketing in 1959. This committee's recommendations were to a large extent acceptable to the beekeeping industry at that time. Conditions have changed since the committee presented its report.

It reached one conclusion however which is still true today. It considered "the Authority's true function is to be a stabilising and regulating force in the industry. It should accept all marketable honey submitted; sell its honey in the best interests of its suppliers; market the industry's surplus; offset fluctuations in production from season to season; and administer the Payout Equalisation Fund".

In its early years the Authority faced several financial difficulties. Following an interim report of the 1959 Committee, however, the Government reorganised the Authority's finances and provided overdraft accommodation at a

concessional interest of up to $180,000. This was considered at the time to be sufficient with the reserves in hand, to finance 1,200 to 1,300 tons of honey intake. The Authority was told that should the intake in any year substantially exceeed 1,300 tons the Government would consider favourably the provision of additional overdraft.

When Mr Nordmeyer, then Minister of Finance, informed the Authority of these arrangements he urged that every effort should be made to build up the reserves against fluctuations in market prices. Due largly to the high export prices for honey in 1972 and 1973, and to the limitation of the 1973 payout the Authority has now achieved a level of financial stability that should encourage producers to stay in the industry and plan to increase their operations.

Export prices are falling and honey is more difficult to sell overseas.

With the backing of its substantial reserves, however, the Authority has been able to announce a guaranteed payout which is 17½ percent higher than last year's payout. I was pleased to approve this increase and trust that the payout formula as agreed upon by the Chairman of the Authority and the President of your Association will form the basis for fixing the guaranteed payout for subsequent years.

It should give producer-packers a better indication of the level at which to set their own purchasing prices of bulk honey. It should also give the price-fixing authority a basis for approving local wholesale and retail prices. This can help stabilise retail prices and so encourage local consumption.

LEVY

Every year sees some changes in the issues for discussion at Conference but one topic seems to come up for discussion regularly every year—the Levy. In my address to Conference last year, I referred to the conflicting views of your National Executive and the Honey Marketing Authority as to how the present levy procedure should be changed.

I commented that the Government was reluctant to agree to the perpetuation of the present system or any extension of it. I said that I would prefer your Association and the Authority to discuss this matter around a table where opposing points of view could be argued and some compromise reached. I understand that the levy issue was thoroughly debated at your last Conference and that the proposals put forward by your Executive were accepted in principle. But at subsequent meetings between representatives of the Executive and the Authority, a different scheme was agreed to.

This new scheme has been outlined to me as follows:

(a) All extracted honey shall be liable for payment of levy at point of sale or supply.

(b) Honey offered for sale in a retail pack (that is, up to 10 lb will bear a seal, as at present, indicating that the levy has been paid.

(c) Honey sold in any other container to a person other than a packer will also bear a seal indicating that the levy has been paid.

This would apply principally to sales by producers of honey in customer's own containers, or in any containers over 10 lb to customers or trade users.

(d) Honey supplied to a packer will require a sale note indicating that the levy has been paid by the producer, and the packer accepting honey from a producer on these terms shall then be entitled to claim an appropriate credit from the Authority.

(e) A packer will in these circumstances be liable for payment of levy only on honey which he has produced, except where has has specifically arranged to pay the levy on honey supplied to him.

(f) Honey supplied to the Authority shall also bear the levy which will be obtained by deduction from the payout to the supplier.

(g) The rate of levy shall be determined annually, calculated to recover the budgeted administrative costs of the National Beekeepers' Association and the Authority over an average production based on experience over previous years.

I told the Authority and your Association that I had no objection in principle to this new proposal except that I should require the inclusion of a provision to have the effect of exempting from levy sales of honey by hobbyists and small-time beekeepers.

I asked the Authority to let me have a suggested draft of the amendments to give effect to these proposed changes, and indicated that when these had been received they would be discussed with your Association and the Honey Packers' Association. I have now received a draft of the proposed amendments from your Executive with the information that they have been agreed upon between the Executive and the Authority; but that the proposals will be further discussed at this Conference. At this stage therefore I have not consulted the Packers' Association.

The Authority has since suggested that for the first year the levy should be fixed at 1c per kilogram. I was happy to agree to this, as it was evident that some criticism of this and earlier schemes has arisen from lack of information on what the cost would be to the producer. It seems to me that the new scheme has significant advantages over the present levy system. I am aware that it will not satisfy all sections of the industry, but I should like to see bulk suppliers, and producer-packers making a more serious attempt at the Conference to understand each others' problems and reach agreement on a scheme that is a compromise between the present levy system and the earlier "payout by declaration" system that the Authority regard as impracticable.

This brings me to another topic: The fragmentation of the industry.

As in most industries there is scope for specialising in certain aspects. I have mentioned bulk suppliers and producer-packers, but there are also comb honey producers, honeydew producers and queen bee breeders, all with their own problems, and often working against one another to the detriment of the industry as a whole.

Within these groups also there seem to be sub-groups—the South Island producers and the predominantly darker honey producers in the North Island have their own differences of opinion. I note that your Association has under consideration a proposal to change the constitution of the Executive to give representation to these special groups.

This, of course, is a matter of your own internal policy and I commend your Executive on their endeavours to bring the various sections of the industry more closely together. From time to time, however, I am approached by representatives of these special groups and also by well-meaning individual beekeepers putting forward their views on what should be done to resolve their own problems.

I am informed that at an Executive Meeting in December the question was raised as to the extent of the notice taken of these representations. I appreciate that your Association represents the interests of beekeepers generally, and I am pleased to discuss with your President and Executive Committee all matters affecting the beekeeping industry. At the same time, so long as there are properly constituted and organised groups of beekeepers engaged in special aspects of the industry, I shall give due regard to their representations—but I should like to see the Annual Conference used as a meeting ground where all sections can try to resolve their differences.

The Authorty has approval from the Minister of Finance to lend money from its reserves to beekeepers for the purpose of increasing their production. These loans will be at a concessional rate of interest but will be subject to a condition that the honey crop is to be supplied to the Authority for the period of the loan.

I understand that some producers have expressed concern that the entry of the Authority into the money market could prejudice the chances of those who want to apply to the Rural Banking and Finance Corporation (a Division of the State Advances Corporation) for a loan without any condition as to the dispsal of their crop. The Ministry has made inquiries and has been assured by the Rural Banking and Finance Corporation that the Authority's lending will make no difference to the Corporation's policy. The Corporation will continue to consider applications from beekeepers on the same terms as stated to your Association last year. Beekeepers have less real security to offer than other classes of producers and this is a limiting factor as far as the Corporation is concerned. The Authority is, of course, better placed to take security over the honey crop.

BEEKEEPING AND PRODUCTION

The trend has been for the smaller beekeeping units to be absorbed by the larger ones. Apiary statistics based on commercial units with more than 400 hives show that expansion and consolidation have continued apace in the last ten years. Latest figures for the "over 400 hives" bracket show a total of 125 beekeepers owning 138,360 hives. A comparison with the 1963 figures shows a 16 percent decrease in the number of beekeepers, and a 28 percent increase in the overall number of hives owned. In 1973 the average ownership in this "over 400" group was 1,100 hives; compared with 980 hives in 1971, and 720 hives in 1963.

This increase in size of enterprises during the past ten years has been accompanied by an increased labour requirement and for mechanisation in both the honey house and for field work in the apiary. Presently the average labour requirement is nearing two full-time men assisted by a seasonal worker.

The honey crop for the 1973-74 season was setimated at 5,140 tonnes. This represents a 260 tonne drop below the six-year average. Changeable climatic conditions early in the season and drought conditions during the honey flow period were the main factors in below average honey crops being secured in many of the important beekeeping districts.

POLLINATION BY HONEY BEES

This aspect of the industry is gradually expanding. Paid pollination services are steadily increasing in the orchard and small berry fruit growing areas, also in the legume seed industries. New crops such as sunflower and oil seed, rape and white flowered lupins are being grown more extensivley and will require bees for pollination. In the Bay of Plenty some 400 hives were brought into Kiwi fruit areas for pollination services and it is estimated that 1,000 hives will be required for this purpose within the next few years.

For the majority of beekeepers, improving their economic efficiency remains the only positive means of meeting the present production and marketing situations. An increasingly competitive market is demanding higher and higher standards of product quality.

I am pleased to note that at the Beekeepers' Seminar to be conducted by the Ministry and your Association next August at Taupo, the theme of the Seminar will be— "Honey: Its Production, Processing and Marketing". This theme is both appropriate and topical. Here it is hoped beekeepers will benefit from listening to the various speakers listed on the programme.

Finally, as I see it, what you need in this industry is co-operation, getting together, communication. In this way you will be able to benefit the industry as a whole and yourselves as individuals.

Extracts from Debate on the Under-Secretary's Address to Conference

Lorimer: I express my concern at your attitude on being prepared to meet splinter groups. It is only in latter years that Ministers of the Crown have listened to fragmented groups of an industry where there is a National body representing the industry as a whole. To me this is a sign of weakness.

Barclay: My door is open to anyone and I recognise the democratic right of all to come to me at any time. I would hope that your industry will get together and work together. I recognise the N.B.A. as the main stream but will listen to any others who come to me.

Jansen: I am interested in your comments on the Levy Scheme. I have only just learned about the four or five-fold increase in the cost of this scheme to beekeepers. And all but one of the beekeepers in my area are against this scheme. Will you reassure me that this scheme will not be imposed on us against our wishes?

Barclay: All must make some contribution to be equitable. I would hope for unanimity in the industry.

Morris: Last year you recommended that a Cost of Production Survey should be prepared to guide the Government in the amount of payout to be authorised. What has happened to this?

Barclay: This is at present under negotiation by the N.B.A.

Ashcroft: The amount authorised for payout in the 1972-73 season equals theft. To restore your good image will you right this wrong which has been done?

Barclay: This money is not held by Government. It will be used for stabilisation of prices in the industry to avoid dramatic fluctuations as there have been in the past. This has been honestly done for the benefit of the industry as a whole.

Hansen: Will Government subsidise beekeepers if honey prices fall?

Barclay: I would expect the industry to stand on its own two feet if at all possible. However let me give you an illustration. When meat prices were booming we reduced the subsidy on fertiliser. Now meat prices are falling and fertilise subsidies are on again.

Stuckey: The reserves created by the H.M.A. plus other moneys means that the country owes the beekeepers as a whole more than $1 million.

Blair: The Comb Honey Producers applied for affiliation to N.B.A. and were turned down.

Barclay: I commend getting together again.

Ecroyd: In the event of this Conference not agreeing to the Seals Levy, what happens then?

Barclay: I would hope you are not going into this Conference with a negative attitude.

Berry: My comment on the Levy Scheme is this: It is a dead duck. A Hive Levy is favoured by all but one beekeeper in Hawkes Bay.

Barclay: I don't mind what kind of system you finally put forward. What I need is unanimity and what appears to be fair and for the good of the industry as a whole. I don't want to be presented with something which does not have the backing of the beekeepers of New Zealand.

Forsythe: Perhaps the present problem is being caused by your offer to listen to the Honey Packers after the last Conference.

Barclay: Unanimity here counts for a lot. I must listen to the Packers and any other groups who have grievances.

Baker: The Reserve Fund of $300,000 held by the H.M.A. is to be used for the benefit of the industry as a whole. I have heard rumours that this money will be lent to individuals and will therefore not be available to be used for the purpose for which it was held back.

Barclay: Your remarks will be better addressed to the H.M.A.

President's Address

By Ivan J. Dickinson

The report that I have to bring before you on the Association's affairs for the past year has no startling revelations or grand achievements contained in it as indications led us to believe there could have been at the conclusion of the last Annual Conference.

It has been a year in which your Executive has done a tremendous amount of work on your behalf with very little to show for it. This is not for the want of enthusiasm but certainly the lack of co-operation and appreciation by members of the Association of the problems undertaken by the Executive

and their attempts to resolve them in a way to suit the majoriy. This applies in particular to the Levy issue.

As can be seen by the reports in the "New Zealand Beekeeper" and the Executive minutes sent out to Branches, the work done by the Executive has been varied and has covered many subjects. Wherever possible the length of meetings has been shortened in an effort to reduce costs but this has not been altogether possible due to the long and searching debates on the Levy question. This matter has been under negotiation with the H.M.A. for the full year. More of this later.

The membership of the Association has, if anything, risen slightly over the year to the present number of 720. The latest figures from the Ministry of Agriculture and Fisheries shows that there are some 3,559 Registered Beekeepers in New Zealand. This means on these figures the Association represents some 20.23 percent of beekeepers. But let's have a more realistic and factual look at these figures. Working on averages here are the figures:

1,000 plus hive group, M.A.F. records 48 beekeepers operating 82,265 hives. The N.B.A. members have 44 of these operating 75,416 which is 91.67 percent.

500-100 group, M.A.F. records 77 beekeepers with 56,049. N.B.A. have 66 of these with 48,048 — 85.72 percent.

251-500 group, M.A.F. records 72 beekeepers with 24,002. N.B.A. have 40 of these with 13,320 — 55.49 percent.

51-250 group, M.A.F. records 195 beekeepers with 25,130. N.B.A. have 160 of these with 20,640 — 82.13 percent.

1-50 group, M.A.F. records 3,167 beekeepers with 20,498. N.B.A. has 568 of these with 3,313 — 16.6 percent.

The Dominion totals record that there are 3,559 beekeepers in New Zealand operating 207,944 hives. Of this total this Association represents at present 722 beekeepers operating 160,737 hives which is 77.29 percent of the total number of hives. If we deduct the 1-50 group which is normally regarded as the Hobbyist section, the Association is representative of 83.78 percent of the remainder.

When looked at in this light it goes without saying that the Association does truly represent the industry in the country. I sincerely hope that this does answer those who have been very outspoken on who the Association represents.

FINANCE

At this Conference twelve months ago the Executive proposed that, based on projected expenses that subscriptions be increased three times over. However Conference voted against this and subscriptions were only doubled. This Conference decision pleased the Association, and indeed all the members, in the position where the balance sheet is now in deficit and the Association's future in jeopardy. As can be seen by the financial report, and having in mind the present rate of inflation, this budget was not so far out in actual costs.

As any increase in the subscription rate cannot take effect until the

commencement of the next financial year following Conference the increase in subscription approved by Conference last year will not reflect in the balance sheet figures until next year's balance sheet. However it was envisaged that the changes in the Levy regulations would come into being during the year and this would assist the situation on the financial front.

When the Association met with the Authority in September on the Levy issue and it was then apparent that this would not be concluded for some time the Authority was told that due to any delay in implementing the amendments in the Levy proposals the Association would inevitably be in financial stress. The Authority agreed that this would be the case and that they would, if necessary, assist the Association in this respect. It is inevitable that this assistance will be required in the very near future and approaches will be made to the Authority. Also in the light of the present situation the Executive had no alternative at its meeting prior to Conference so agreed to ask the Minister to increase the grant to the N.B.A. to $6,000 forthwith.

MARKETING

The world market at the present time is not as promising as it was at this time last year and the indications are that prices are in favour of the buyer and if anything will continue to be so for sometime yet. The Authority is endeavouring to obtain the best prices possible on this market and therefore sales are not as far forward as compared with the same time last year. Producers would be well advised to acquaint themselves of the market trends when planning for the coming season as if there is any dramatic decrease in overseas realisations the base price would accordingly be reviewed. In the light of the continual inflationary trend in costs such as fuel and sugar the future for the industry is not very rosy. The local market has been somewhat upset with the present shortage of packaging material and if anything in some areas there has been a short supply. However the higher prices at the retail level has created an increase of sales at the apiary door to price conscious consumers seeking supplies at lower rates. If the present market trends continue for overseas export, producers will need to be cautious of increased capital expenditure.

BRANCHES OF THE ASSOCIATION

During the year I have been able to visit the various branches and attend their meetings. Having a knowledge of the relative branch membership strength I have been very concerned at the poor attendances at branch meetings and this must not be viewed lightly in view of the new voting procedures at branch and again at Annual Conference. It does seem to me that Branch Executives could have a long, careful look at their meeting agendas and see how they can make them more informative and instructive.

Too often the meetings get bogged down on particular political issues which is not always everyone's cup of tea. I would suggest to Branch Executives that they consider increasing their number of meetings a year to permit the discussion and educational aspects of honey production and management and thus broaden the scope to branch meetings.

Conference Group, Fitzherbert Motor Inn, Palmerston North.

AGRICULTURAL CHEMICALS BOARD

Mr T. Pearson has retired and Mr J. W. Fraser of Ryall Bush has taken over this position.

RULES

I am pleased to report that the Rule Book has been reprinted and copies are available from your Branch Secretary or Delegate. It was with a certain amount of reservation that the Executive decided to proceed with this reprinting having in mind their financial state. Due to the many alterations that have been made over the last two years it was most necessary that the Rule Book be proceeded with to avoid any confusion amongst members.

PROPOSED AMENDMENTS TO THE HONEY MARKETING REGULATIONS

I cannot emphasise too strongly the amount of work that has gone into this issue over the past twelve months by your Executive. The delays and frustrations throughout the year to resolve the issues so that they are acceptable to both the Authority and the Association has taken considerably longer than anyone would have thought. Following last year's Conference when the Association met with the Authority in September a complete impasse resulted in as much as the Authority did not favour the scheme as outlined at Conference and directed their solocitor to draw up a proposal based on the extension of the present scheme. They promised the Association that they would make this available to be considered by us as soon as possible.

In December a meeting was arranged but due to N.A.C. flight cancellations, the Authority's solicitor or manager could not be present and therefore no material was before the Association to consider. The situation remained the same until March when the Authority invited representatives from the Association to attend a meeting in Auckland. At this meeting, which the Authority's solocitor attended, the whole issue was considered again and i was agreed between the both parties that a scheme be drawn up by the Authority's solicitor which included aspects from the scheme passed at last year's Conference and also the present Seals Levy scheme. Since this meeting various aspects of th escheme had been under review and it was not until the last week in June did your Executive come to an agreement with the Authority on proposals that were based on decisions made at the March meeting. By this time I was aware that at least two Branches were about to have their remit meeting so it was considered too late to have the proposals sent out with a covering explanation for Branches to consider before coming to Conference. It is regretted that this has become the situation but the Executive have endeavoured at all times to obtain an agreement with the Authority that would be acceptable and workable having in mind the wishes of the industry as a whole. Later in this Conference you will be given an opportunity to hear of these proposals in more detail than the outline of the basic details already sent out to Branches. I appeal to you all to consider these proposals very carefully and constructively having in mind the industry as a whole.

RESTRICTION OF PAYOUT ON H.M.A.

At this time last year this was a very hot issue and if I may say so the embers are still hot to handle even after twelve months. I am sure all will agree that the agreement reached with Government on this matter is a considerable improvement on last year's. At least some of the autonony of the Authority has been returned to it but we look forward to the day when it has been fully restored.

The establishment of reserves by an industry such as ours is without doubt a very good move but to have such a considerable sum accumulated in the one year placed considerable strain and induced resentment by producers with just reason. Time will tell that those embers will be pretty hot for some time to come.

SUGAR SUPPLIES

Producers, particularly in the South Island, have experienced the very grave situation of not being able to obtain supplies of sugar when required this year. There has been a number of contributing factors that brought about this situation and I feel that it has been a lesson to all that it is imperative that basic needs be ordered well in advance of requirements. On behalf of the Association I recently made representations to Trade and Industry and through this a line of communication has been established with the N.Z. Sugar Co. in Auckland. Producers who are still experiencing difficulty in obtaining supplies are advised to write to the Secretary giving their name, amount required in the short term and also the longer term requirements along with the name of the wholesaler they normally purchase from. In some areas the Sugar Co. has already sought this information from wholesalers and some supplies are coming forward.

METRICATION OF BEEKEEPING EQUIPMENT

Recently the Association met with the Ministry of Agriculture and Fisheries to discuss proposals and recommendations on the metric sizes of beekeeping equipment. Although appearing reasonably simple to relate metrics to the present imperial measurements it is considerably more complicated when it has been gone into in detail. I am pleased to report that agreement has been reached on the majority of the proposals and I am sure that producers will have no difficulty in using the metric recommended sizes with present imperial size equipment. The metric sizes are slightly smaller but will pose no problems.

I would like to express the Association's thanks to Mr Graham Walton of the Ministry for the tremendous amount of work that he has been involved in formulating the basis of proposals that were agreed upon. The masses of figures and detail that was involved and prepared for the meeting made the major contribution to the successful outcome of the agreed proposals.

"THE N.Z. BEEKEEPER"

Over the past twelve months there has been some difficulty in getting the Journal out on time but I am sure that these problems can be overcome. It is essential that we do not have the situation that existed through the lateness of

the May Journal which contains all he information necessary for members attending Conference. The reintroduction of a subscription for the Journal has had no detrimental effect on its demand and we are continually getting new subscribers both from overseas and within New Zealand.

I say re-introduction of a subscription for I noticed recently in a booklet on the early history of the Association that back in 1914 when the Journal was first published members paid 3/6 per year over and above the subscription to secure the magazine. The Editor has continued the section for Hobbiest Beekeepers and from comments received it has been well received. Generally I am sure you will all agree that is well worth receiving having articles of interest to suit all associated with the industry. I thank Mr Stanton for his efforts in this regard.

LIBRARY

Mr Chris Dawson has continued his loyal and devoted work with the library and he has a wealth of material available to all beekeepers just for the asking. His own personal knowledge of both the craft and industry enables him to assist members in the selection of books for whatever subject or aspect of beekeeping is desired. I must take this opportunity to congratulate him on his initiative in promoting the beekeeping project at the Christian Leaders' Training College in Papua, New Guinea.

This has been very well received at the College both by staff and students and will be of great assistance in helping the Islanders to learn the craft and to take what they have learnt back to their own villages. I have received a communication from the principal of the college expressing his grateful thanks to the Association and to all beekeepers who have assisted in the many ways with the project. He goes on to say that Mr Dawson is supervising the project with his usual enthusiasm and 13 students are enrolled for his lectures and instruction.

THE GENERAL SECRETARY

In March of this year the Association entered into discussions with the Pig Producers' Council in regard to the position of General Secretary. Out of these discussions the Association was presented with a proposal that the Secretary of the Pig Producers' Council, Mr Graham Beard, also carry out the duties of our Secretary and the Association would benefit by being aligned with a similar producer organisation having similar problems as our own. Also the expertise and knowledge of an Executive Officer such as Mr Beard who has been associated with producers' organisations over a period of many years.

The Executive considered the proposal and decided that the advantages both directly and indirectly were too attractive to turn down. It has been agreed between the two organisations that fees would remain the same for the initial period of eight months and during this period an accurate costing of the Association's work be carried out and the position reviewed. The Pig Council are emphatic that they are not taking on this work to make a profit but to make full utilisation of their staff and only wish to recover their costs of our operations. The agreed change over time has been set at 1st September.

At this juncture I, on behalf of the Association, thank Mr Neal and his staff for the loyal service that they have given the Association over the recent years. As I said at this time last year Mr Neal has given a considerable amount of time to the Association far in excess of the return he was receiving, and at the beginning of his term of office there was a considerable amount of tidying up of the Association's affairs to be done. Mr Neal, please convey to Mrs Neal and your staff our sincere thanks.

MINISTRY OF AGRICULTURE AND FISHERIES

Throughout the year the Executive has called on the services of the Ministry of Agriculture and Fisheries officers and at all times the Association has been cordially received. With the planning of the North Island Seminar and the work associated with the metrication of beekeeping equipment as well as the many other aspects of industry affairs the Association has been kept well informed and on behalf of the Association I extend our thanks and look forward to the continued co-operation and liaison in the coming year. In an industry as small as ours it is vital that a close and co-operative attitude exists between the Ministry and Association.

THANKS

In conclusion I would like to express my thanks to my Executive for their co-operation and support throughout the very busy year. To Mr Neal and his staff my thanks for the work carried out during his term as Secretary. It must be with some concern and bewilderment that Mr Neal concludes his term of office with the question of the Levy proposals still being debated at Conference — the same situation that he faced when he took up the position back at Takapuna four years ago.

At this point of my report last year I called for Conference to recognise the situation the Association and industry are in and to come to grips with the problems with constructive debate and effort.

The main issue, gentlemen, at this Conference is: Do you, or do you not, want an Association?

Extracts from Debate on the President's Address

Berry: I am staggered to find that the proposed Seals Levy will cost some beekeepers four or five times what it did previously. I hope Conference will be able to have a good look at this and the industry must look at itself seriously at this Conference.

Poole: I regret Mr Berry's attitude.

Herron: It should have been in the President's Report that money held in trust will be lent to beekeepers who supply honey at present to the H.M.A. If the N.B.A. has asked for this it is unfair discrimination.

Dickinson: This is an H.M.A. affair and the N.B.A. has not discussed this loan scheme.

Barber: Many years ago the now defunct Honey Producers Association had a small balance of funds. We are willing that this now be donated to the N.B.A.

Dickinson: This will be accepted gratefully.

Heinemann: May I express the thanks of this Conference to the President who has done such a good job.

N.Z. Honey Marketing Authority

Address by Russell Poole, Chairman

I am pleased to present this Conference with a report on the activities of the H.M.A. over the last twelve months. As has been our custom over the past years, Authority members have attended Branch meetings and Field Days wherever possible to speak on Authority matters, and regular newsletters have been sent to suppliers, Branch Secretaries, the Editor of the "N.Z. Beekeeper" and others in an endeavour to keep the industry well informed.

Along with other sections of the community, we are moving towards metrication, and it was decided in October last year when setting the conditions of supply for he ensuing season to use metric weights for honey supplied to the Authority. At that time we had an indication from Mr Bruce Barclay, Parliamentary Under-Secretary to the Minister of Agriculture and Fisheries, that he would be prepared to consider allowing a higher payout for this season than the 20c per lb average that he set for 1972-73. As we did not know to what figure he might allow the payout to rise, it was felt that the advance payable to suppliers should in the meantime remain the same as the previous season, but stated in cents per kilogram instead of cents per lb. Due to the popularity of the early delivery bonus introduced the previous year, it was decided to continue this, and extend it so that the full bonus applied to honey supplied to the 31st March, and that half the bonus applied to honey supplied in April.

A new bonus, the Water White bonus for honey grading 0-9 mm on the pfund scale was introduced, and many beekeepers supplied honey in this category. The Authority's intake for the year ended 30/6/74 was 1,402 tonnes, of which 1,390 tonnes received the early delivery bonus, and 115 tonnes received the Water White Bonus. It was also decided to pay inward freight on honey supplied where the distance exceeded 50 miles.

[Editor's note: One tonne equals 1,000 kilograms or 2,205 lbs, 35 lbs less than one ton imperial.]

By late December, after the President of the N.B.A. and myself had made joint approaches to Mr Barclay, he set the payout for this season at 52 cents per kg (or approximately 23½ cents per lb) average. As a result of this, at the Authority's next meeting the advance to suppliers was increased to 40c per kg flat. I would like to stress that if the Authority's trading results show a net return of better than 52c per kg then the payout could be higher than that set by Mr Barclay, but it cannot be lower than 52c per kg average.

Export Markets

Last year world honey prices were high, and importing countries were buying strongly, with the result that some countries bought more than their requirements. As a result there has been very little demand from the main buying countries, with a consequent downward trend in prices. Due to a lower than usual intake occasioned by a poor crop in most areas the Authority is in the position of not having much honey to offer overseas, and due to our strong financial reserves we do not have to quit our stocks quickly, but can hold off

until prices improve. The Australian Honey Board has twice recently lowered its minimum export selling price, yet despite this many beekeepers have large stocks of honey which they cannot sell even at the new reduced minimum prices.

Local Sales

Due to the below average crop throughout most of the country, and shortages of packing materials, demand on the local market has been high. The Authority's three packing plants have been producing to capacity for some months, and only now are we beginning to reduce the backlog of orders. All suppliers to the local market have been beset with pricing difficulties, and the Price Tribunal and Department of Trade and Industry seem determined to continue the anomaly of every brand of honey having a different approved price. The Authority has tried on many occasions to have one price approved for honey regardless of brand, but so far without success.

Under the latest of a long list of Regulations entitled the Stabilisation of Prices Regulations 1974 which came into force on Monday, 15th July, it would appear that honey in retail packs comes under category B and is subject to the Maximum Retail Price Scheme, whereby the Wholesalers' mark-up must not exceed 15 percent of his buying price, and the Retailers' mark-up must not exceed 25 percent of his buying price. The Regulations also prohibit price rises unless a period of at least six months has elapsed since the date on which the price was last determined, approved or fixed. However it is very difficult to give advice in a general manner which will apply to all cases. You would therefore be well advised to be sure that any changes to your selling prices are within the limitations imposed by Government, and in this regard the Department of Trade and Industry should be consulted.

Branches

We have now experienced a season where the two South Island branches handled depot stocks. It has perhaps been fortunate that the crop and consequent intakes were below average, as it enabled the branches to find areas of weakness and cope with unexpected problems a little easier. We had expected the transition to 44 gallon drums to be a slow one over a few years, but this has not been the case, and the result has been to create some problems in melting out drums for local packing. However the experience gained will be of considerable use in arriving at permanent drum heating and handling facilities. In this regard, I would like to pay tribute to the South Island Branch staffs for their perseverance in coping with unexpected difficulties, and in using their experience and inenguity to overcome the problems which have arisen.

Industry Levy Scheme

This scheme is to be discussed at this Conference, and has by now been discussed at Branch meetings. Every endeavour has been made to acquaint beekeepers with the details of the scheme and any misconceptions still remaining in beekeepers' minds will be due to their unwillingness to study and absorb the explanations already given. In the past, the objection has been that only some honey bore the levy, and that it was comparatively easy for some people to evade the levy while others, mainly those packing for the retail trade, were paying the major portion of the total levy collected by the Authority. In order to overcome this objection, the N.B.A. Conference voted both last year and the year before to implement a levy covering all honey. The two Conferences passed motions advocating different means of collecting the

levy and while the proposed scheme is not in accordance with last year's Conference vote, it is a practical scheme designed to achieve the objectives desired by past Conferences, and to make evasion difficult and enforcement simple. As I understand it, Conference wanted a scheme which would result in adequate N.B.A. finance provided by the industry as a whole, and I further believe that no right thinking beekeeper wants a scheme which lends itself to wholesale evasion and which would be more difficult to enforce than the present levy.

It was with these thoughts in mind that the Authority met with the President and vice-President of he N.B.A. and designed a scheme which will give the Association the financial stability it requires, and also gives the H.M.A. regulations which are simple to put into effect and to administer. We realise that the seal on the container has been complained about in the past, and this has been retained in the proposal, but I feel the objection to the seal in the past was in reality an objection to paying a levy which was being easily avoided by other sections of the industry. We feel sure that the new proposal containing as it does no exemptions will make enforcement very simple, and evasions will very quickly come to the Authority's notice.

During the course of later debate I will be happy to give further explanations of the scheme as may be requested and I hope that delegates will carefully weigh the arguments before voting on this crucial subject. A clear directive to the N.B.A. and H.M.A. to proceed with this proposal is earnestly sought by all those who have given many hours of thought and study to the scheme as it is now put before this Conference.

Loans to Beekeepers

This proposal has been well received by some beekeepers and severely criticised by others. To date about 20 applications have been received for a total of around $100,000.

Staff

During the year, Mr C. Carr tendered his resignation from the position of General Manager, and indicated he wished to resume the position of Secretary Accountant which he had earlier held. Mr Curtis Wicht has been appointed as General Manager, and he hopes to meet as many beekeepers as possible during this Conference. The Authority is very appreciative of Mr Carr's work during his term as General Manager, and is pleased that his services are being retained. We have been fortunate in the fact that most of the staff in key positions have been with the Authority for some time — Mr Rowan and Mr Smith in the Auckland office, Mr Christian and Mr Leonard in the Auckland factory, Mr Olykan at Christchurch and Mr Merrit at Pleasant Point. Without the stability resulting from their continued service and the manner in which other members of the staff have supported them, the efficiency of the Authority would have been seriously impaired.

In conclusion Mr President, I would like to thank you and your Executive for the co-operation you have given me over the past twelve months, and my thanks also to my fellow Authority members for their support and endeavours to further the cause of the beekeeper and the beekeeping industry.

Annual Report From Ministry Of Agriculture And Fisheries

By Eric Smaellie, Apiary Section, Advisory Services Division

INSPECTION OF APIARIES

Check inspection of apiaries for bee diseases by Apiary Instructors was continued with assistance from competent beekeepers acting as Temporary Inspectors.

The overall incidence of diseased apiaries and hives found by Apiary Instructors and notified by beekeepers in the 1973-74 season was 2.2 per cent and 0.4 per cent respectively. The total number of diseased hives burnt was 713.

Although this overall incidence is low, apiaries on which disease was found are relatively widespread in each of the apiary inspection districts. The situation leaves no room for complacency and proper measures to control the spread of the disease should be a priority for all beekeepers.

PRODUCTION

The 1973-74 production of honey was estimated at 5,140 tonnes, which is approximately 200 tonnes less than last season and 140 tonnes less than the average for the previous six seasons.

In Tauranga and Gore districts crops were above average. Average crops were produced in Auckland, Hastings, Palmerston North, Nelson and Christchurch districts, but were below average in North Auckland, Hamilton, Hawera and Oamaru districts.

HONEY GRADING

Extracted honey submitted for export grading as at August 1973 totalled 2,151 tonnes, an intake of 655 tonnes above average. Of this honey 166 tonnes were rejected as being unsuitable for export. Comb honey submitted for export grading was 222 tonnes. Fermentation and low specific gravity remain the most serious faults in the honeys rejected.

ADVISORY/INVESTIGATIONAL WORK

Advice to beekeepers on apiary management techniques, processing of honey and of new developments in the production of honey has continued.

A North Island Beekeepers' Seminar is to be held at Taupo, August 13-14, 1974. The theme of this Seminar will be "Honey: Its Production, Processing and Promotion." This topical seminar which will cover many new developments in this field, will involve most North Island Apiary Section Staff, as well as outside speakers.

Also in preparation is a one-week training course for queen bee and package bee producers at Flock House. This course is scheduled for February, 1975.

METRICATION

A significant part of the year's activity has been a detailed study of metri-

cation and its possible effects on the specification for beekeeping equipment. A report titled "A Proposed Metric Specification for Standard Hive Equipment" was submitted to representatives of the Executive of the Association, the Comb Honey Producers' Association and equipment manufacturers for study and criticism.

These proposed specifications were discussed at a meeting held at Christchurch in June and approved for adoption as official specifications.

The new metric specifications retain the full use of existing equipment, but introduces certain measurements, that recognise (a) the optimum living conditions for honey bees; (b) the availability of standard metric timber sizes; (c) convenient metric units; and (d) continued use of existing imperial equipment.

NOSEMA DISEASE SURVEY

A Dominion-wide survey involving over 300 samples of honey bees was conduced during the months of October and November. Random 1 in 30 sampling was based on registered apiaries owned by commercial and semi-commercial beekeepers. This survey was prompted by the January 1972 investigation into poor colony performance in the Rotorua-Taupo areas which indicated **Nosema apis** as a contributing factor.

The **Nosema apis** spore analyses for the survey have been completed and results are at present being analysed by the Biometrics Division.

BEESWAX SEPARATION IN MANUKA HONEY

Last year the Food Technology Department at Massey University carried out a small project into the effects of temperature and vibration on the separation of beeswax particles from Manuka honey. This work indicated that temperature and vibration has an effect on wax separation from thixotropic honey. However, no total success was obtained in removing all the fine flakes and globules of wax. This Ministry is co-operating with this project and further work in the honey house is planned.

EXPORT OF PACKAGE BEES TO CANADA

A feasibility study was undertaken to determine if an export venture was possible. Polystyrene packages with plastic liners were designed and tested with various cooling agents. Further investigations showed that volumetric measurements, rather than weight factors, determined freight costs. More detailed technical and logistic studies indicated the development of this trade will depend on future freight costs and the service provided by the various airlines involved and by beekeepers in supplying good quality queens to meet customers' delivery and management requirements.

PHOSPHORUS JAM BAITS

Strawberry jam mixed with pollard and containing elemental yellow phosphorus is used for rabbit control by some Pest Control Boards. Samples of jam and phosphorus as well as jam, pollard and phosphorus, were tested during March, April in the open for attractiveness to bees and also inside some hives on top of the frames. Bees readily collected the baits and consumed them without apparent harm. No excess mortalities were noted in the test hives. It was concluded that phosphorus jam baits present no imminent danger to field honey bees.

Report From Wallaceville Animal Research Centre

By T. Palmer-Jones

The Section is headed by Mr T. Palmer-Jones and the staff consists of Messrs P. G. Clinch, Scientist, I. W. Forster, Senior Technical Officer, and J. Faulke, Technician.

EXPORT OF QUEEN BEES

The Apiculture Section examined 87 samples of bees from a range of hives in the apiaries of suppliers before queen cages were loaded with escort bees. This enabled the provision of escorts from hives unaffected with **Nosema**, so complying with requirements for import permits.

The incidence of **Nosema** was lower than usual in samples submitted but still sufficiently high to warrant preventive feeding of fumagillin to hives selected by queen breeders to supply escorts.

PROJECT WA/1 AGRICULTURAL CHEMICALS

Azinphos-methyl and Chinese gooseberries. The general practice of Chinese gooseberry growers is to rent hives which are brought into the orchards during the flowering period to supply bees for pollination. Mortality of bees sometimes occurs in these hives to an extent liable to affect their value as pollinators. Azinphos-methyl, known to be highly toxic to honey bees, is used on Chinese gooseberries to control leaf roller (**Tortix spp.**). Although this compound is applied as a pre-blossom spray, it has been suspected of causing the bee mortality. Following a field investigation we recommend that the pre-blossom application of azinphos-methyl to Chinese gooseberries should be carried out before the first flowers open. Citrus growers should not spray their flowering trees with insecticides dangerous to bees. Apart from causing general bee mortality this could seriously affect hives brought to nearby Chinese gooseberry orchards for pollination.

Pirimicarb. Pirimicarb, a recently developed fast-acting aphicide of moderate mammalian toxicity, could be of value in controlling aphids on brassicas, citrus, potato, apple and other plants in New Zealand. The compound was claimed to have some systemic properties. It appeared likely from laboratory tests conducted at Wallaceville that pirimicarb would be safe to honey bees when applied to flowering crops unless significant nectar contamination occurred. Such contamination and possible bee mortality would be most likely for brassicas and fruit trees because of their exposed nectaries and the great attraction of their flowers for honey bees in the spring. The effect on honey bees of pirimicarb could therefore only be satisfactorily assessed by a field trial. Accordingly it was applied to fully flowering chou moellier (**Brassica oleracea L.**) in the morning before bees had commenced flying. The compound caused mortality for four days after spraying and its application to flowering crops cannot be recommended.

PROJECT WA/2 POLLINATION

Chinese gooseberries (Actinidia chinensis Planch) **Hayward variety.** Plant-

ings of Chinese gooseberries are increasing rapidly following successful development of an expanding overseas market. Practical experience has shown that the crop is very dependent on cross-pollination between male and female flowers. Because Chinese gooseberries have only recently become of commercial importance the role played by honey bees in their pollination does not appear to have been investigated, although hives are hired extensively by growers. A study of Chinese gooseberry pollination was recently carried out in the Bay of Plenty area where most of the crop is grown.

Nectar secretion was not observed in male and female Chinese gooseberry flowers of the Hayward and Abbott varieties. Honey bees visited male and female flowers of both varieties for pollen, mainly in the mornings, when it was damp and could be more readily packed in their pollen baskets. Honey bees provide virtually all pollination.

There was a significant reduction in the weight, but not the number, of fruit formed from flowers protected from bee visitation. Seed formation in protected fruit was significantly lower than in fruit exposed to bee visitation. Lack of adequate pollination results in the production of underweight fruit.

Adequate pollination of Chinese gooseberries is difficult to attain because of various adverse factors apart from the unattractiveness of their pollen. To ensure adequate pollination we recommend that hives be placed in orchards at the rate of 8 per ha.

Sunflowers (Helianthus annus). Sunflowers are being grown, mainly to provide vegetable oil, on an increasing scale in New Zealand. Little was known of their pollination requirements and accordingly we determined these in the course of a two-year investigation.

An average of about one honey bee per sunflower head will provide maximum pollination for sunflowers of the Peredovic variety. This density may be achieved if about 20 hives per ha are within 3.2 km of a crop. Bumble bees play no effective part in sunflower pollination.

Sunflowers are not fully dependent on honey bees for pollination as a low yield of seeds with a germination rate of 99 percent formed in a cage which excluded bees. Crops with a low bee coverage also produced seed of good quality, but less quantity, than when bee coverage was high.

PROJECT WA/3 TOXIC HONEY

This permanent project continues. There will be an increase in samples withdrawn from experimental hives for toxicity tests.

PROJECT WA/57 HONEY PRODUCTION COMPARED FOR QUEENS FROM THREE QUEEN BREEDERS

This project was concluded and results have been analysed by the Biometrics Division. It is being written up for publication.

PROJECT WA/80 EFFECT ON HONEY BEES OF EXTERNAL ACARINE MITES

This project is proceeding. A section of it concerned with the seasonal incidence of Nosema disease of honey bees has been compeleted and a summary follows.

Colonies of honey bees were sampled for **Nosema apis** spores at approximately monthly intervals over a period of 26 months. Results indicate that, although the seasonal pattern of infection was similar to the overseas one, there were large differences in both the magnitude and timing of peak infections from year to year.

When apiaries containing three different lines of bee were sampled in the spring little difference was found in the susceptibility of the lines of **Nosema**. However, the incidence of the disease varied from one apiary to another.

The results confirm that colonies required to supply escorts, for the export of queen bees, should be fed fumagillin to ensure their freedom from **Nosema**.

PROJECT WA/81 DIAGNOSIS OF PARALYSIS AND ITS EFFECT ON HONEY BEES

This project is almost completed.

PROJECT WA/99 DESIGN OF AN EFFICIENT HIVE ENTRANCE

This project is proceeding.

PROJECT WA/115 COMPARISON BETWEEN THE PERFORMANCE OF BEE HIVES FED SUGAR AS A SYRUP AND DRY

This project is proceeding.

Executive 1974

(From left): David Penrose (Canterbury); Percy Berry, Vice-President (Hawkes Bay); Gavin McKenzie (South Canterbury); Ivan J. Dickinson, President (Otago); Malcolm D. Haines (Far North), Eric R. Neal, Retiring General Secretary; Michael S. Stuckey (Auckland).

BIOGRAPHICAL NOTES ON NEW MEMBERS OF EXECUTIVE

GAVIN McKENZIE

In reply to your note of 29th July I have set out a few details.

I am a second generation beekeeper, my father has been beekeeping commercially for over 40 years and still operates over 400 hives.

I trained at first with my father and later worked a season with F. A. Bartrum Pleasant Point. I then acquired my first hundred hives which I worked along with other work for a few years. From this I ventured to Southland and worked a season with Herrons Apiaries Waikaka Valley, prior to joining the Department of Agriculture as Apiary Instructor in the Southland area. I held this position for three and a half years before returning to form our present beekeeping company with my brother Milton.

At present we operate two thousand hives as a bulk honey producing unit in South Canterbury, Central Otago, and Southland.

P. BERRY

My very critical attitude to our beekeeping industry's administration for many years may have stemmed in part from my long interest in Government generally.

My wife and I raised a family of five on a small bush farm with slump conditions being a hard taskmaster.

During Conference I forgot our 44th wedding anniversary owing to heavy involvement in the work of conference. With the active participation of the family a substantial beekeeping business has been developed. Now I'm the boy round the place secure in the knowledge that our 14,000 hives of bees and the business related to such a unit is being well cared for by a good team. I retain an active interest in our company's financial and marketing affairs. The overseas marketing of our comb honey has long been an interesting exercise. Conference placed on me the responsibiltyy of helping to replace the present Honey Levy System with the Hive Levy System which we all hope will make New Zealand beekeepers happier with their lot. I expect to get the willing co-operation of Government in expediting the change

MIKE STUCKEY

I started my beekeeping career when I was in the fourth form, spurred on by a need for pocket money. With the exception of one week's holiday a year I worked for Mr Belin, with whom I am now in partnership, until I left secondary school. I trained as a Primary School Teacher and taught for a year and two terms, still working for Mr Belin in the holidays. The Waitemata Honey Co Ltd of which I own a share is ample to keep me both busy and interested. We run 1,000 hives and produce and pack clover, manuka and pohutukawa honey, also we produce comb honey, both sections and cut comb and pollen. We buy and pack both comb and extracted honey from other producers.

I have been a member of the Auckland Branch of the N.B.A. since 1964 and its secretary for the past two years. I am looking forward to this year on the Executive, which I have approached with a sincere desire to offer my best as well as being willing to learn.

Nectar for Novices: A Section for Hobbyists, Amateurs and others

By P. W. Marshall, Hastings

Successful Beekeeping For Beginners

(Continued from May issue, page 37)

My second question in the opening paragraph is not easily answered. Some people are simply made in the way that they take up all sorts of things with enthusiasm for a short time and then get tired of them; we all know the type. Nevertheless, the wastage rate in beekeeping is really quite high. This is why so many beginners are able to start with secondhand equipment.

Bees and beekeeping have a mystique to which many people are attracted, and no doubt some make a start with bees with very optimistic ideas, gained perhaps from the more glamourous types of journalism. When they find that beekeeping is not all easy honey, that it is a skilled craft to be learned, and that some disappointments are inevitable, their ardour cools. These things of course act as a stimulant to the type of person who is a sticker, and he goes on to reap the deep pleasure that is to be gained with the knowledge and skill.

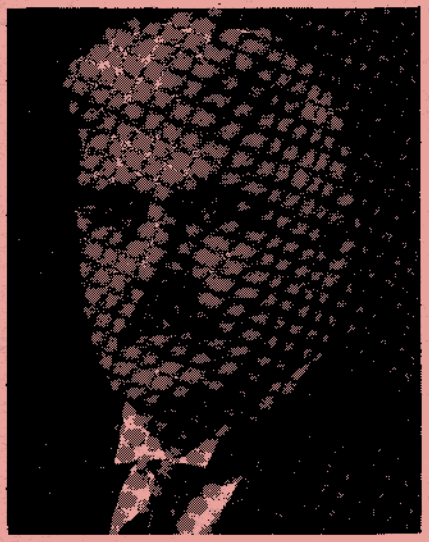
Beekeeping does need a philosophical approach, and a generally calm temperament. The aggressive go-getter is not going to have his own way with bees, they will soon "learn" him.

Stinging is another factor that may put some off, and here not only popular writings but some beekeepers acting as teachers are to blame for delusions in this respect. I hink it best for a beginner to understand right from the start that nobody manages bees without getting the occasional sting, and face he fact. It can be stressed in all truth that the risk of any dangerous after effects is an extremely small one, but that proper protective clothing is always wise. Some people never do overcome an innate fear of being stung, in spite of the fact that opening a colony of bees is a far less dangerous operation than crossing a road. Such persons can never make real beekeepers.

A final note. There are bad-tempered bees, and no beginner can learn the job properly with them. Many have been put off for ever by getting an irritable colony to start with. Every help should be given to a person in this situation. As for anyone who knowingly sells a spiteful lot to a novice, words fail me at such an unsocial act.

A Jib From Women's Lib.

By Tom H. Pearson, Life Member, N.B.A.



TOM PEARSON

The projected new building for future Parliament will be possibly a beautiful structure, situated in a central position where in all New Zealand national problems will be dealt with it is also our national centre of the British Empire and being a beehive, its central head will be the Queen.

It is well known that the new Parliament building is termed a 'beehive'; this is not based on the modern shape of the hive of today which is almost square in shape and has been over the last one hundred years or so, but this beehive will take the shape of the old type which runs back for hundreds of years, being a cone shape and in the past ages made of twisted straw and termed a skept (I understand a Scottish term).

Please note a beehive is composed of very few males, but has thousands of females, each with a very active sting, when necessity arises does all the work in and out of the hive which is very extensive for the economy of the hive and the smooth running of same, while the male (drone) loiters in the hive, does not a tap of work, helps himself to stored honey and when the weather is warm, about midday goes for a fly as exercise.

We hear much these days about women's lib, thus I think the following may give the organisation a further boost (reference the noted Parliament new structure beehive functioning in a year or two's time).

The writer has owned and worked over a number of years, some 1200 beehives per year, so is well versed and has extensive knowledge in relation to the nature of same.

In ordinary circumstances hive occupants produce excellent attributes, perfect building potential, harmony, economy, strike free, attention to the young, numerical status, cleanliness of hive; having approximately 40,000 occupants all truly loyal to their queen, in fact showing perfection in all their ways. The chief point to stress, of the thousands composing the hive only a limited number of the male sex, possibly only a few hundred or so, the very greatest majority being females. The influence then is the hive showing such perfect attributes being termed a beehive and with the showing as above, **it would only be natural that Lib fitted in so well the qualities as shown above should claim their rights.**

On the basis of what has been stated above and facts that are unquestionably the feminine element in every aspect, shows perfection whereas the male on the other hand with the exception of two virtues only, and for approximately six months at the most, are tolerated and after this period are driven to destruction by the feminine element as they, in this half-year period, have fulfilled their value to the economy of the colony. Basing the human element on this basis what a poor showing in comparison has the male element, yet our governing body in Parliament is made up of practic-

ally all men (the male element) having the strange urge to construct a central premises in which to formulate the manner in which our whole economy may function and this of all structures, a BEEHIVE. Why a beekeeper would destroy at the earliest opportunity a hive of all male bees, a perfectly useless membership!

The two virtues of the male (drone).

1. During the early building up in the spring, and carrying on during the time of honey gathering, a number of males in the hive have the aspect of creating a necessary normal atmosphere in the hive.

2. For the normal propagation of the the species, virgin queens at a given age, issue from the normal; or from special queen rearing hives, these hives specially governed by the owner of the hives. These virgin queens, during a fine weather period and at approximately from say 11 o'clock to 2 p.m. or similar times, the males are out flying in goodly numbers by the special buzz of the virgin queen the males hear and make in numbers towards the virgin queen (she is very fast in flying, hence nature makes it possible that only the fastest and most virile flying males catch up with her for the fertilising agency). This is termed in beekeeping as the marriage flight.

As possible interest to my readers—when the two come together in the process the virgin queen extracts the whole of the male organ which is fully absorbed in about 12 hours and in about two to five days this queen begins her life work of egg laying. Rightly fertilised she is able to lay an egg that will turn into a male or a female; a good queen is able to lay over 2000 eggs in 24 hours.

ANOTHER JIB FOR LIB

About six years ago my wife was president of the Orakei-Kohimarama League of Mothers of about 60 members, stated that their annual meeting —at which men were invited to attend, said that at this coming occasion about four husbands were being asked to speak on each of their respective employment and what line and certain points of interest connected with same, and if starting again would they choose the same line? Each were to be allowed to speak for five minutes.

Her advice to me was to the effect that someone in the meeting might ask that the Chairman's husband be also invited to speak, so I had better be prepared just in case. I didn't give the hint much weight at the time, then later I got a thought or two and finally hit upon a few worth while points. I worded a lady friend of mine whose husband was one of those chosen speakers, that she would at the right time rise and suggest that the chairman's hubby be called upon to do his part, this suggestion was greeted unanimously and I was invited by the chair to come forward, of course I had to appear to be rather surprised at being asked and also to speak right off the cuff. I started by claiming that as I was a conscript so to say, the meeting could not expect me to stick strictly to the rules laid down for the previous speakers. I then stated that at about the age of 16 or so my parents gave me to understand that I should be giving some serious thought to my future occupation, they too gave the subject some thought. I stated that my mother came o learn that I had four obsessions, first that I was very fond of sweet things, two that I had a greed for money, and thirdly that I was very fond of the feminine sex, and fourthly that I was of the strong opinion that this sex should rule our economy—with such ideas I could have expected the disfavour of my parents, but my mother being a wise person set out to build my future on these views of mine. Finally she advised me to become a beekeeper, at least I would always have plenty of sweets, she came to know that the average beekeeper was not overburdened with money, thus I would not have a lot of wealth to squander on the feminine sex, so this would have a steadying effect on me. She also knew that a good beehive contained between 30 to 60,000 bees, and with the exception of some two hundred or so all the rest were of the female sex, then needing some 500 hives or thereabouts to make a reasonable living on the above basis, I would have my obsession well

(Cont'd on page 37)

BEESWAX

World prices dropped 5c-7c per kilogram recently and could possibly show a further downward trend in the future. Our policy has always been to offer the highest possible price to the New Zealand beekeeper, having regard to world prices and we are always ready to give you our latest quotations.

COMB FOUNDATION

We have now had two-three months of supplying foundation in metric weights and would suggest that you order in kilograms not pounds in the future. We have found it desirable to pack only 15 kg in each carton of Full Depth Thin Super instead of the 16 kg we indicated in a previous advertisement. In order to assist you in ordering we show below the metric weights of the various types of foundation and the approximate number of sheets per carton:

	kg per carton	approx. sheets per carton
Medium Brood	12.5	221
Seven Sheet Special	13.5	208
Extra Heavy Brood	16	211
Thin Super Full Length Full Depth	15	395
Thin Super Standard Half Depth	15	893
Thin Super Full Length Half Depth	15	827
Medium Brood Three-quarter Depth	12	277

Where possible please order in multiples of full carton lots.

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Papanui, Christchurch, 5.

"The foundation of Success"

Robin's Sweet Number

By John Parsons, Taupo

Forty million Italians are nearing the end of a six-week working holiday in the Tongariro National Park. See also Front Cover picture.

They are living in 800 separate communities within easy striking distance of thousands of acres of purple-flowering Scottish heather.

And before they leave, the 40 million "tourists" will have made some 10 tons of ling heather honey for Taupo beekeeper Robin Jansen.

The "tourists" are, of course, Italian bees. And Mr Jansen is confident they will provide the best harvest ever of ling heather honey.

He will market the honey in New Zealand for the first time this year and will export crushed comb and liquid honey to Britain.

Until he perfected his own stainless steel press and procesing plant for the unusually thick raw honey, Mr Jansen had to send all his ling heather honeycomb to England for processing and marketing.

"Hopefully, New Zealanders will appreciate this new honey just as much as people do in Scotland and England where it sells at twice the price of ordinary clover honey," said Mr Jansen.

"But it should retail here for no more than half as much again as the price of our traditional honeys.

"We tried out small consignments in a few places in New Zealand in 1972 and it went very well, so it looks like being a success throughout the country."

You could say that the success of the ling heather honey project is due mainly to the devotion of the huge "labour force" of bees and to the vision of the men who introduced the heather to burned-off tussocklands in an attempt to establish grouse-moors for sportsmen.

But the kingpin of the project is Robin Jansen.

In the 18 years he has been keeping bees, Mr Jansen's own personal drive and enthusiasm has turned a marginal business into a remarkable success story.

His hives produce half as much honey again as the hives of the average New Zealand beekeeper. Whether his bees are making honey from rewarewa, tawari, clover, kamahi or ling heather they transform nectar at an average seasonal rate of 100 lb per hive. Why so?

"Well, my bees are probably the most travelled bees in New Zealand," he grins.

"I truck as many as 100 hives at once — that's five million bees —

anything up to 90 miles at a time to get them on to the different spring and summer blossoms as they appear.

Success

"Intensive beekeeping is the key to success. Concentrate your efforts where you know your bees will find all the nectar they need to keep their noses to the grindstone. They'll work a 10-hour day every day while the blossom lasts and the weather remains warm. No stop-work meetings, smokos, overtime bans, go-slows, strikes, or complaints. Just the occasional sting.

"Mind you, the work of moving hives and hive sections full of honey throughout the six-months' season is physically very demanding. But the rewards are worth the effort.

"Starting off in the spring with the rewarewa blossom at Kawerau, we then truck hives to Rotorua for the tawari, and a little later to Taupo for high country clover. We put some hives into the Tongariro National Park area to get manuka honey, then strengthen our workforce there considerably to catch the heather, which may last almost until the end of March.

"We have 2400 hives. It would be great to move them all around as the season progresses, but the effort required would be superhuman. So we leave about 1000 in various places fairly close to Taupo and concentrate the remainder on major areas of blossom production.

"Some of these 'task force' hives will turn out between five and seven times the weight of honey produced by the average New Zealand hive—that is, 300 lb to 400 lb, compared with the average 60 lb."

While the bees are making honey hand over fist, Robin Jansen and his team add hive-sections. The original single-storey units may become high-rise structures of up to seven storeys.

When filled, each box-section will contain about 50 lb of honey.

Throughout the season, some 6000 filled boxes are transported back to the factory just outside Taupo where the honey is processed.

Like farming, beekeeping has its ups and downs. Cold summers — and cold spells within warm summers — can cut back the honey yield drastically. This year, however, has been good to Mr Jansen. The fine warm summer has provided a 50 per cent increase in his average annual production.

But the favourable conditions have also aided the proliferation of a pest which over past seasons has cost Mr Jansen thousands of dollars. Wasps—the beekeeper's nightmare — have been raiding his "yards", or small groups of hives, north of Taupo, for some weeks, especially where they are set down close to bush.

"When they find a convenient yard they attack several hives for a start, then concentrate on the weakest. They kill all the bees, take all the honey, then start on the next-weakest hive. During the past two seasons we've lost close to 300 hives this way."

Even so, it will take much more than the pirating activities of a few thousand wasps to damp Robin Jansen's wave of enthusiasm.

Letters to the Editor

Fairview
Timaru
July 27th 1974

Dear Sir,

Having just learned of the recent Conference decision to change the 1973 Conference decision of a levy based on production to one on hive numbers my first reaction was, "What will the next Conference want the levy based on?"

At the 1972 Conference by an 80% majority it was decided to extend the present levy. Regulations were drafted and all was ready to go when at the 1973 Conference the Under-Secretary to the Minister of Agriculture in his address stated the Minister was reluctant to see the present levy continue and suggested a Levy based on production. Conference in its weakness and confusion agreed to this principle.

After long hours of work and considerable expense Draft Regulations were drawn up and presented at the recent Conference but, no, this Conference wanted a levy based on hive numbers. No wonder my opening thoughts.

Let us be sensible and examine the position. The present levy is paid by the consumer, this is undeniable. $30,000 are contributed to the industry which assists the financing of the National Beekeepers Ass. and boosts the Honey Marketing Authority pay-out by 1-1½ cents per pound which in turn raises the selling price of the producer to outlets other than the Authority by a like amounnt. The only objection comes from the packer who collects this levy. He should not object for the levy also lift his own produced honey by a like amount.

A levy on production is a direct cost to the producer, difficult to pass on. After the cessation of the present levy the Authority payout must drop by 1-1½ cents per pound and so when coupled with the payment of a producer levy lowers the value of honey by a further ½ cent per pound making a total lowering of 1½-2 cents per pound. When discussing the producer levy at the 1973 Conference I stated the levy would be ½ cent per pound short term and 1 cent per pound long term. One Member interjected "Rubbish" but how right I was.

Now let us examine the proposed hive levy scheme. It is recorded there are 200,000 hives in this country and as $50,000 are required to be collected from the levy, this is then 25 cents per hive.

This method of basing the levy on number of hives places the burden of payment in a different field to that of production. The payment will be on hives only, no matter whether they produce honey or not, comb honey or honey dew, high value honey or low or high or low

production through natural causes. The payment bears no relation to production to honey value. It could be well said that this may assist in raising the standard of beekeeping but there as so many variables in beekeeping this is just not relevant. The payment is just not related to turnover at all.

It is reputed one beekeeper has 14,000 hives, can he afford to pay $3,500 each year, I doubt it. Fortunately I am in a high producing area so my burden will not be proportionately as high as some producers.

It is most difficult to understand the mentality of the Industry. Fancy throwing out a consumer paid levy for one which places an unfair burden on the unfortunate at the same time lowering the value of the honey produced. If the industry is to continue to show such lack of responsibility then it will find itself without an Executive at all, no self-respecting producer will allow himself to be elected to a position where his efforts are to be made a mockery of.

HARRY CLOAKE

Spokane, Wa. 99201 USA
N902 A ST

Dear Sir,

I saw your add in gleanings in Bee Culture, and have thought I would like to get in touch with beekeepers of your country.

I am a man of 69 years young retired from the US Air Force as a civilian employee and Social Security and I am also a WW II vet. I say this only because I met a few servicemen from New Zealand when I was in the Army.

I liked them. They were fine upstanding young men and they were a long way from home.

Now back to bees: I kept bees more than 50 years ago in Western Montana, near the town of Missoula. My uncle heard that I was reading up on bees so told my father he would give me 2 hives for helping him with his wheat harvest.

1930 my father could no longer hand his farm which was a square mile of cutover woods land and grazing. There was barely 60 acres of cropland and 45 of that irregated in hay. We three boys grew tired of working for nothing at home and went elsewhere for work.

I did not get my bees away in time when Pa left the old place and a caretaker killed off the bees that winter to get the honey.

Jne 2, 1937 I had a serious heart attack and thought I would not be able to do my part-time custodial job so took up bees again. I have 5 colonies and am doing some experimenting and have 4 kind of bees Caucasians, ltalian, Three Banded Italians and Dadant Starline Hybrids. Starline have done the best and from a 2lb Pkg May 9 have now over 100 lbs of honey over their brood chamber.

I would like a sample copy of your bee paper and would like to correspond with a man who raises bees and is also a hunter and fisherman.

I thank you for your kind service,

Carl Kjeldsen.

P.O. Box 164, Waihi.

The Editor,

RICHARD TAYLOR'S VIEW ON H.M.A.

I know you do not encourage a slanging match through the magazine between producers and the H.M.A., but I feel that the second to last paragraph on page 90. titled "Bee Talk" in March, 1974, *Gleanings in Bee Culture* magazine is worth some mention. Richard Taylor, as a visitor with some knowledge in honey production and marketing, could see the unfairness of our honey marketing system.

I feel that a reproduction of this paragraph by Richard Taylor would be good reading for not only producers but also hobby-beekeepers and H.M.A. members alike.

Yours faithfully,

TONY WILTON.

P.S.: Perhaps Mr Moyle would also appreciate a copy of the article if you do reproduce it?

PART OF THE ARTICLE PUBLISHED HERE IN "GLEANINGS" REFERRED TO IS REPRODUCED BELOW

By Dr Richard Taylor, R.D. 3, Trumansburg, N.Y. 14886

I have just returned from New Zealand where I finished up two books on beekeeping that I had been writing. I learned a lot about beekeeping in that part of the world and Mr Stanton, the editor of their national bee journal, also gave me a lot of help on one of the books. Our winter is their summer, of course, so the honey flow was going strong during the Christmas holidays.

New Zealand is one of the world's primary beekeeping areas, and all the beekeepers I met and talked with take their work very seriously. In a country of only about three million people there are nearly a quarter million colonies of bees, and they produce between five and six thousand long tons of honey every year. (A "long ton" is 2,240 pounds). Beekeepers there also raise lots of queens, many of which are air mailed to Canada. I believe that by law they cannot be imported into the United States, which helps keep prices high for beekeepers here. It is a foolish law, because there are no bee diseases there that are not already here, and anyway, our Canadian friends just over the border from where I am now sitting can import all the New Zealand queens they want. But that's the way it is when it comes to government bureaucracy — it is much easier to impose restrictions on a free people than ever to get them removed, especially when the salaries of government functionaries are involved.

The New Zealanders raise a fantastic variety of honeys, the names of

some of which take practice to learn how to pronounce — pohutukawa, rewara, kamahi, names like that. The New Zealand Honey Marketing Authority packs at least ten different kinds, frequently selling combinations of different kinds. Thus if a buyer gets a kind he does not like, he does not forthwith conclude that he does not like honey, for there will be another there that he does like. I saw one large apiary on an island composed entirely of scoria or slag lava and completely devoid of both soil and water. All the ground looked like broken asphalt. The island is nevertheless covered with unusual vegetation that roots in the crumbling lava and derives all its needed moisture from rainfall. I wondered where the bees gathered water, but then detected a slight and pleasant saltiness in the honey. Perhaps, then, they are reduced to gathering sea water, and the saltiness of this is somehow imparted to the honey.

THE IMPORTATION OF THE HIVE BEE INTO NEW ZEALAND

42 Years of Beekeeping In N.Z. — 1874-1916

SOME REMINISCENCES By I. Hopkins

This account was published in 1916 and presented to the Cawthron Institute in 1925 under the will of the author.

(Continued from our May issue)

Best and neatest got up packages of comb honey for marketing; 3 entries. J. Collins, 1; W. Beloe, 2.	15	0	5 0
Best hive for comb honey with surplus arrangements; 1 entry. Bagnall Bros. and Co., 1.	10	0	
Best hive for extracted honey, with surplus arrangements; 1 entry. Bagnall Bros. and Co., 1.	10	0	
Best hive for observatory purposes, stocked with bees and queens; 2 entries. Bagnall Bros. and Co. 1.	15	0	
Best collection of apiarian appliances; 1 entry. No award			
Best comb foundation for brood and extracting frames, manufactured in Australasian colonies; 3 entries. I. Hopkins, 1; no 2nd award	10	0	
Best comb foundation for sections manufactured in the Australasian Colonies; 3 entries. I. Hopkins, 1; G. Stevenson, 2.	10	0	5 0
Best shipping crate for comb honey; 2 entries. J. Collins, 1; no 2nd award.	5	0	

As I have always strongly advocated the taking advantage by our Associations of our principal Agricultural and Pastoral Association's winter shows to mark large and attractive exhibits of honey, etc., as an advertisement of our industry, I thought it advisable to give pretty full particu-

lars of our pioneer efforts in this direction of over thirty years ago, as an incentive to our present Beekeepers' Association to do likewise.

OTHER DISTRICT ASSOCIATIONS.

The establishment of the New Zealand Beekeepers' Association acted as a stimulus in the formation of others, not only in New Zealand, but also in Australia. Mr A. E. Bonney, a prominent beekeeper in South Australia, with whom I was in frequent correspondence, was instrumental in calling a meeting of persons interested in beekeeping, which was held at the Chamber of Manufacturers Hall, Adelaide, on July 11, 1884. A strong association was formed, with the Hon. R. D. Ross, M.P., as president, and Mr A. E. Bonney secretary.

This was followed soon after by the formation of the "Coromandel Beekeepers' Association" in October, 1884. Mr J. H. Harrison president, and Mr J. D. Colebrook secretary and treasurer.

At this time there was some talk of forming an Otago Beekeepers' Association. It was eventually formed, but not till some time later.

Although there was no association at Timaru, Col. C. S. Bailey, who was an enthusiastic beekeeper, and one of the executive committee of the N.Z. Beekeepers' Association, was, so far as the work of promoting advanced bee culture is concerned, an association in himself. The gallant colonel, who had kept bees in the Old Country, did an immense amount of good for the industry in South Canterbury. He promoted the first bee and honey show held in that part in December, 1884. The local press spoke very highly of the exhibits and of the energy the gallant colonel displayed in getting up such a fine exhibition both at Waimate and Timaru shows.

Instead of referring to them again, it may be well to give here the dates of the formation of association which took place later on: The New South Wales Beekepers' Association was established in July, 1887, Mr Angus Mackay, Instructor in Agriculture, N.S.W. Technical College, being chosen Dunedin, was formed in October, 1887, as president; The Otago Beekeepers' Association, with its headquarters in the late Mr I. G. Brickell being president, and Mr W. C. Brown hon. secretary. Mr Brickell, assisted by other members, gave demonstrations periodically in the Botanical Gardens, Dunedin, in the way of handling and transferring bees.

The formation of the Queensland Beekeepers' Association took place in 1885, and the first annual meeting was held on August 20, 1886. President J. B. L. Isambert, M.L.C., and E. C. Cusack secretary. The Maitland (New South Wales) Beekeepers' Association was formed in the latter part of 1887, and on August 27th of the same year the Hunter River Bekeepers' Association was established, with R. Scobie president, and R. F. Munday secretary. Other associations formed at much later dates will be enumerated later on.

It will be seen from the foregoing that the new bee culture made very big strides both in Australian Colonies and New Zealand during the first seven or eight years after its introduction into Australasia. These notes are all taken from my "Bee Journal", so are correct.

THE FIRST SIX-COMB REVERSIBLE HONEY EXTRACTORS USED IN NEW ZEALAND.

For the first few years after the new beekeeping had become well established, the type of honey extractor in general use in America and elsewhere was the fixed basket, two-comb "Novice" (A. I. Root's).

One of the first to realise the need of larger extractors was my friend R. Wilkin, of California, and in the lateer part of 1882 he constructed an eight-frame reversible one. On May 7th, 1883, he wrote me (I have this letter before me) explaining details, and also sent diagrams of the parts of his big extractor — by the way his letter was published in the "N.Z. and A. Bee Journal" for August, 1883.

Shortly after this date I drew out the plans for a six-comb reversible-basket extractor, which was constructed by

Messrs. Masefield and Co., Auckland. Owing to my being unable to superintend the making of it, it was constructed in a more expensive manner than I expected. The whole of the internal gearing was made of brass tinned over, and the body of stout kauri lined with steel tin—its cost was £28/10/-. This price, when the bill came in, gave me a shock, and was the tragical part of the business; the comical part came when the firm advertised the same extractors, at £15, immediately after mine had been delivered. The explanation from the firm was that I had to pay for the making of all the moulds in the first place, which the firm claimed they could use in making others.

The extractor was a very fine one. There was, however, one drawback, the handle was on top of the vertical shaft, there being no side gearing to govern the speed of the revolutions. The consequence was that when set going with six heavy combs in the basket, one had to let go the handle and wait till the extractor slowed down. Eventually side gearing was fitted — quite a number came into use in the next few years.

ADOPTION OF A STANDARD HIVE FOR NEW ZEALAND.

We, in New Zealand, in fact, I may include Australia, were very fortunate in adopting a standard hive right from the start of our career in modern commercial beekeeping. It has saved us no end of confusion and expense. Practically the ten-frame Langstroth hive became the standard in New Zealand and Australia as soon as I introduced it, made it known through the Press, and manufactured it for sale. Two years after its introduction, that is, in 1880, there were a goodly number of Langstroth hives in use in New Zealand, and early in 1881, quite a number weer sent to Australia.

As several newcomers from England wanted to introduce the British hive they had been used to in the Old Country, and realising that if we did not formally adopt a standard hive at once, and fight against the introduction of others, there would soon be trouble, I broached the subject in the "New Zealand and Australian Bee Journal" for August, 1883. I pointed out the difficulties the English and American beekeepers were in through having many sizes of hives in use, and that we ought formally declare and adopt some hive as the standard one for New Zealand. Of course, it was a foregone conclusion that the 10-frame Langstroth would be chosen and it has been the standard hive ever since.

STANDARD HIVES IN AUSTRALIA.

Very shortly after our formal adoption of a standard hive, the question of following our example cropped up in Australia. I, of course, urged the adoption of the Langstroth hive, and wrote strongly in favour of it. Mr W. Abram, the well-known beekeeper of Parramatta, who had not then been long out from Germany, opposed my suggestion, and advocated the Berlepseh hive, which he had used in Germany. A controversy between us on the comparative merits of each hive took place in the "Sydney Town and Country Journal," lasting six months. The result was the Victorian Beekeepers' Association (the only one then in Australia) declared at one of its meetings in favour of the ten-frame Langstroth as the standard hive for Victoria, which practically meant for Australia.

PATENT HIVE MEN IN AUSTRALIA.

One of the most impudent attempts to claim a monopoly in the manufacture of movable-frame hives and some other apiary appliances by securing letters patent on them, although they had been invented and in use many years before the patents were issued, occurred in Victoria, Australia.

In November, 1884, I received a letter from a gentleman residing in Melbourne, directing my attention to certain patents which had been granted on November 29, 1882, to one C. J. Lee and S. L. Chapman, also to a prior patent granted to C. J. Lee and James Baker in July of the same year. My correspondent also forwarded a copy of a letter of his which appeared in "The Leader" (Melbourne) of July 26, 1884, pointing out that the articles patented had been in use

long before the dates such patents were granted.

Taking the patents according to priority, the one granted to C. J. Lee and J. Baker in July, 1882, was for perforated zinc plates to prevent the queens rising into the supers (queen excluders). There were four claims in the patents granted to C. J. Lee and S. L. Chapman in November, 1882, viz., surplus honey frames in movable compartments (movable frames, containing 1lb sections), metallic ends to frames (metal ends), metallic plates for the frames to rest on (tin rabbets), and removable bottom boards.

As the correspondent to "The Leader" pointed out, the movable-comb hive, with frames, sections and other appliances, had been explained, and most of them illustrated in the first edition of Hopkins' "Bee Manual", published and circulating in Australia in 1881. I think there can be little doubt about the description of the patented appliances having been taken from my manual.

I published the whole of the correspondence, and also the dates and particulars of the invention of each article re-patented, to Messrs. Lee, Chapman and Baker in the "New Zealand and Australian Bee Journal" for December, 1884.

A few months later Mr Herman Naveau, of Hamilton, Victoria, who had purchased his hives from Bagnall Bros. and Co., received the following notice:—"The Australian Apiary and Bee Ranchers Company, Limited. —Caution to the Public,—As I have been informed that my letters patent are being infringed by parties making and selling similar hives, I hereby inform them that I am the sole proprietor of letters patent for the manufacture of movable-frame hives, etc., and shall take proceedings against anyone infringing the same.—(Signed) S. L. Chapman, proprietor." With this was enclosed the following letter: —"Toorak Road, South Jarra, 30th March, 1885. H. Naveau, Beekeeper, Hamilton.—Sir,—As I am informed that you are making and selling hives similar to mine I have to request that you will inform me how many hives you have made and sold, and to whom.—I am, sir, yours truly (signed) S. L. Chapman, manager."

(To be continued)

The Alliance Bee-Supplies Company Limited
Fiftieth Anniversary

On the ninth day of July 1924 The Alliance Bee-Supplies Company Limited was registered with the Registrar of Companies and commenced business as a manufacturer and importer of beekeeping equipment. Prior to this the Alliance Box Company of Dunedin had supplied woodware to beekeepers from the early 1890's and, in fact, The Alliance Bee-Supplies Co Ltd was formed to take over the Honey Producers Association which itself had earlier taken over the Alliance Box Company. At the time the Alliance Bee-Supplies Company started operating Mr Arthur Ecroyd of Christchurch was manufacturing Comb Foundations for beekeepers, having commenced business in 1913.

It was not long before the Alliance Company formed a business association with Mr Ecroyd in that he bought woodware from Alliance to supply his customers, and Alliance bought Comb Foundation from Mr Ecroyd to meet its customers requirements.

In due course two of the original shareholders, Messrs Callick and McLeod died, and remaining shareholder, Mr Wilson, offered the business to Mr Ecroyd. The offer was accepted and on 1st May 1955 Mr Ecroyd's son Kevin assumed managership of the Company and continued the business in Dunedin from the existing premises behind the Dunedin Railway Station. However it soon became apparent that economies could be effected if the two businesses were operated from the one premises, and in January 1956 The Alliance Bee-Supplies Co Ltd shifted to its present address at 25 Sawyers Arms Road, Christchurch.

At various times there have been a number of other firm supplying both beekeeping equipment and comb foundations to the beekeepers of New Zealand, but only The Alliance Bee-Supplies Co Ltd and A. Ecroyd and Son Ltd can claim to have served the Industry for such a lengthy period and to have survived the competition from other manufacturers. Both Companies have had stockists in various towns throughout New Zealand selling their products to beekeepers, and some of the present stockists have been associated with one or both of the two Companies over much of the fifty year period. There are still a few beekeepers actively engaged in beekeeping who were among the Alliance's first customers.

During this fifty year period the Alliance Company has had a continuing association with a number of bee supplies' manufacturers in overseas countries from whom it has imported those items of equipment not made in New Zealand. As proof of the longevity of some of this equipment beekeepers still occasionally enquire for parts for thirty and forty year old extractors.

In recent times The Alliance Company started exporting beekeepers woodware to Australia and these exports now account for a significant part of the Company's production.

BEES OF THE WORLD

By B. J. Donovan, Entomologist, DSIR

PART III: BUMBLE BEES IN NEW ZEALAND

Bumble bees, of which there are several hundred species, are found throughout the northern hemisphere and extend in the New World right through South America. In Africa bumble bees are not found south of the Sahara, and in South-East Asia are found in the Philippine Islands, and Indonesia east to Java.

Four species of bumble bee are now established in New Zealand, all from queen bumble bees imported from England. The history of the efforts to import and establish bumble bees here is detailed by I. Hopkins in his "History of the Humble-bee in New Zealand," 1914.

There are in excess of 500 known species of bumble bees in the world, and undoubtedly more remain to be discovered. They are moderate to large-sized hairy bees; most buzz quite loudly when flying, and most are semi-social in that for part of their life cycle they live with others of their kind in a hive or nest. Although superficially much alike in size or shape, when examined closely there are often great differences in some body parts, especially size and shape of the head and length of the tongue.

Many of the early settlers from England had observed numerous bumble bees on red clover there and had also obtained good seed yields. Here in New Zealand bumble bees were absent and seed yields were generally very poor. In dry summers honey bees did seem to work red clover, but in summers of reasonable or above average moisture the honey bees worked other flowers such as white clover that they seemed to prefer to red clover.

Farmers thus reasoned that there seemed to be a positive correlation between the numbers of bumble bees in a crop, and the seed yield—the more bumble bees, the higher the seed yield.

The first attempt to introduce bumble bees was made in 1876 by the Canterbury Acclimatization Society, and the first fertillized queens arrived at Lyttelton in the ship "Orari", but on opening the package all were dead.

Subsequent efforts by individuals were unsuccessful until 1883 when some queens may have been liberated near Timaru. I. Hopkins imported a total of

nearly 500 queens in several consignments in 1885, but only two were alive. These were liberated near Matamata. There is no indication that the queens liberated at Timaru and Matamata succeeded in establishing.

The Canterbury Acclimatization Society at last received live queens at Lyttelton in January and February of 1885, when of 282 queens brought by the s.s. "Tongariro", 45 were alive and of 260 queens brought on the s.s. "Aorangi", 48 were alive. The 45 were liberated at once on Mr Dean's estate, Riccarton, and the 48 on Mr C. Clark's property near the foot of the Port Hills. Both lots of bees were strong and healthy when liberated.

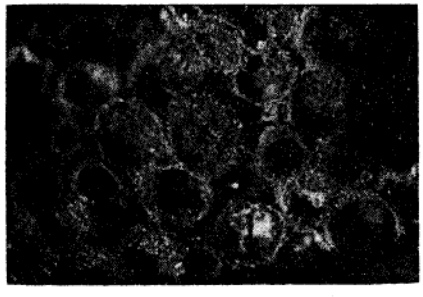
The bees established nests, and their progeny spread over the whole country with remarkable rapidity. Whole nests and queens were sent from Canterbury to various parts of the North Island. In the South Island bees spread at the remarkable rate of about 100 miles a year, and in five years had covered practically the whole of the eastern half of the South Island.

Mr Hopkins records that with the establishment of bumble bees, yields of red clover increased greatly. For example, in a field at Avonhead near Christchurch where in previous years there had been only a small quantity of seed, each head was full of seed. Bumble bees were seen in thousands in some fields of red clover.

However, it was soon discovered that the numbers of bumble bees fluctuated from year to year, and as a result of agitation for more bumble bee importations, in 1906 the Canterbury A. and P. Association imported 325 queens and liberated 143 alive. This was the last importation of bumble bees to New Zealand.

Life Cycle of Bumble Bees

New queens and drones are produced in mature nests in late summer and mating generally takes place in the field, although in some species it may occur

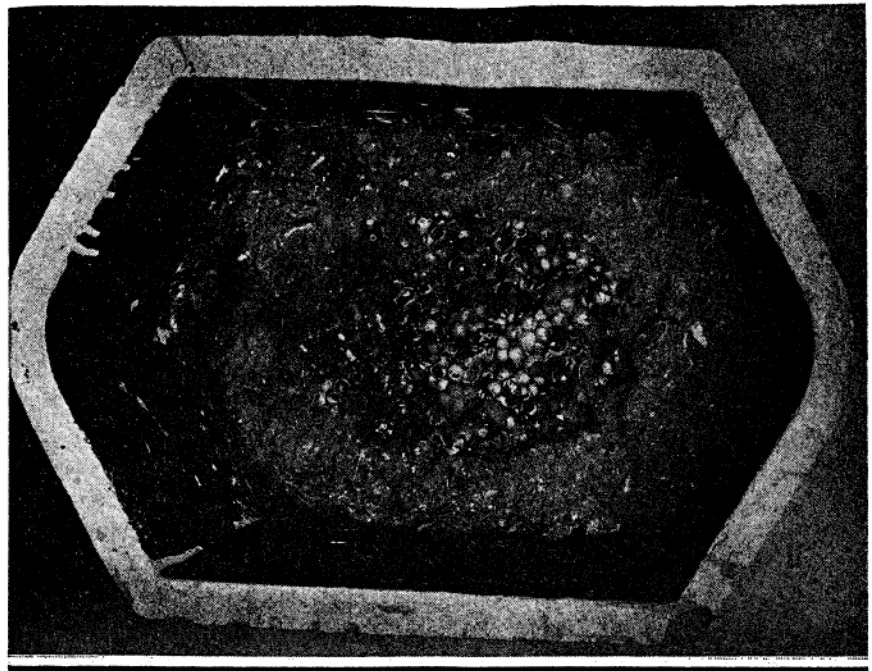


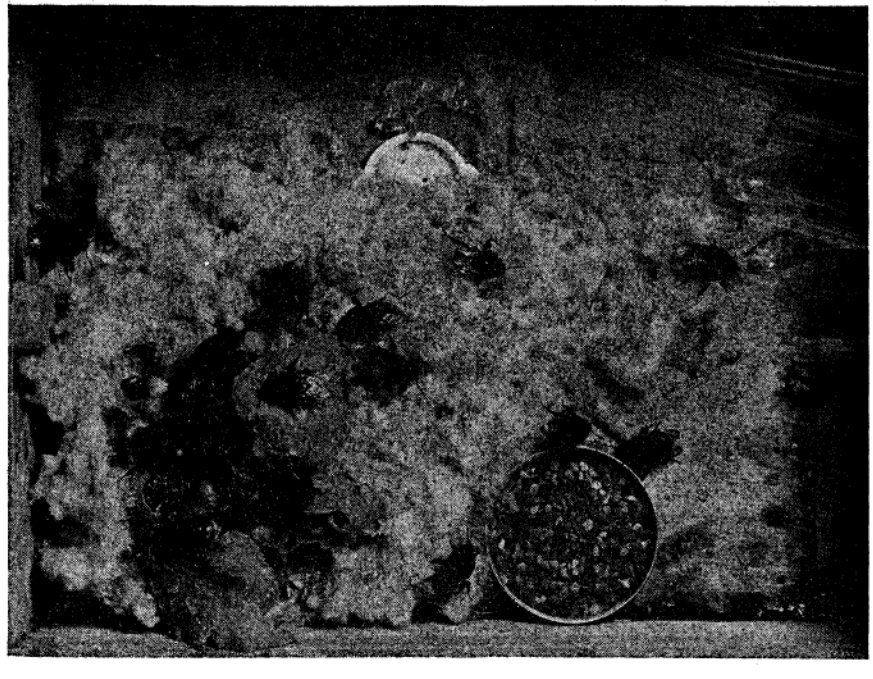
FACING PAGE:

(Above): A nest of Bombus hortorum. This nest was transferred from its natural site in the field to this nest box.

(Below): A nest of Bombus terrestris. This nest was begun in the laboratory by confining a queen with pollen (honey bee pellets in dish) and sugar solution (in glas stube).

THIS PAGE:
Close-up of nest of Bombus hortorum overrun by mites.





in the nest. With **B. terrestris** at least, young queens usually return to the nest after a mating flight to feed to enable the fat bodies to enlarge. As autumn begins the nest disintegrates, the young queens leave and search for a suitable earth bank in which to hibernate for the winter. After finding an area which is generally exposed to the sun, lightly covered in grass and angled to shed water, a queen will in a few minutes dig several inches into the soil and remain at the end of a small tunnel in hibernation until the ground begins to warm in early spring.

In spring the newly-emerged queen feeds on available flower sources for several weeks or longer until the fat bodies, depleted over the winter, are replenished, and the weather improves. The queen then searches for a site such as an old mouse nest in which to build her own nest, and having found a suitable site, she carries in loads of pollen and nectar, lays about 8-10 eggs, and feeds the larvae. New worker bees emerge in about a month from oviposition, and as the queen lays more eggs the new workers take over the tasks of collecting food and feeding the larvae. The number of workers may reach between several hundred and a thousand or so by mid-summer, and at this time the nest begins to produce new queens and drones. After mating, the young queens evenutally hibernate, and the drones die at the end of summer. The old queen usually dies about this time, her ovaries exhausted. Before or with her death a number of workers may begin laying. Their eggs however produce only drones, and as the number of workers decreases, moth larvae and other insects generally attack the comb and this leads to the complete collapse of the nest by late autumn.

Identification of Bumble Bee Species

Some bumble bee species have different colour forms not only within different areas of their range but often within the same area. In addition, the naming of some bumble bee species was (and still is to some extent) in a confused state, so the early settlers had very little idea as to what species had established in New Zealand. In 1953 L. Gurr, now of Massey University, began a survey of the South Island, and from some 6,000 collected specimens determined that four species of bumble bees were present.

(1) **Bombus terrestris**, a short-tongued species was present throughout the North and South Islands and was plentiful throughout its range.

(2) **Bombus ruderatus**, a long-tongued species was present throughout both Islands and was plentiful.

(3) **Bombus subterraneus**, a species with a tongue of moderate length was found in low numbers in the inland eastern southern half of the South Island.

(4) **Bombus hortorum**, a long-tongued species closely related to **B. ruderatus**, was found in good numbers in Canterbury, Otago and Southland.

Grasslands Division of the DSIR at Palmerston North is attempting to multiply the seed of a tetraploid variety of red clover. This clover has an even deeper floret than ordinary red clover, and is only pollinated well by long-tongued bumble bees, so Grasslands Division and L. Gurr have recently liberated queens of both **B. hortorum** and **B. subterraneus**, collected in the South Island from the Mackenzie Country and Fairlie, at Palmerston North. **B. hortorum** has established, but although **B. subterraneus** workers were seen one summer, they were absent the following summer. (Gurr, 1972).

Entomology Division at DSIR Lincoln, in an effort to domesticate and increase the numbers of bumble bees, has developed a nest box which is somewhat acceptable to bumble bees as an artificial nest site. Efforts are continuing.

Further Introductions of New Species of Bumble Bees

From time to time there have been calls for the introduction of further species of bumble bees. In the past this has been opposed because of the fear that newly introduced bumble bees may carry diseases or mites that may adversely affect honey bees. Research has shown however that no diseases or mites of bumble bees have ever been found on honey bees where they co-exist in other parts of the world. (Montgomery, 1951).

Entomology Division at DSIR Lincoln has just taken possession of a new insect quarantine building, and if bumble bees are to be imported, young queens could be raised in captivity and only healthy individuals released into the environment. A greater number of long-tongued species of bumble bees should help ensure a more even number of pollinators for red clover from year to year.

Diseases and Parasites of New Zealand Bumble Bees

In their original areas of the world most bumble bee species are afflicted with many kinds of enemies. Fortunately the bees released in New Zealand must have been relatively free of pests for few are present in New Zealand. It is possible that most infected queens died on the voyage here from England.

Several species of external mite are present and sometimes are so numerous as to cause annoyance, particularly to young queens. Abandoned nests are sometimes overrun with mites, and it does appear that nest abandonment may sometimes be caused by excessive multiplication of mites. Mr R. Macfarlane, Entomology Division, DSIR Lincoln, recently discovered a nematode worm

parasite in bumble bee queens in New Zealand, but numbers are low, and infected queens seem to be found only within about 40 km of Christchurch.

A predatory asilid fly has been recorded catching bumble bee queens in New Zealand, but bee numbers killed in this way are probably low. In early spring when young queens have recently emerged from hibernation and are searching for food, large numbers are killed by motor vehicles. As the bumble bee population increases through the summer, numbers killed by motor vehicles increase, reaching a peak in late summer and early autumn when worker, drone and young queen numbers reach a peak. In open country areas experience has shown that an average of about one bumble bee is struck per 200 km travelled per vehicle in late summer.

Of some 15 **B. terrestris** nests excavated near Christchurch, the numbers of queens produced per nest have averaged 95. For population numbers to remain relatively stable from year to year, only one of these young queens produced must successfully nest the following year. What prevents the other 94 from producing successful nests?

The mortality-inducing factors discussed above probably cause the death of a very small percentage of young queens — probably less than 20 percent. Excavation and examination of bumble bee nests from in and around Christchurch has shown that a nest cavity must be dry and well protected from moisture, and insulated from direct wind and sun. In England the original nest cavaties were probably old rodent holes, but New Zealand has very few small mammals that build dry nest cavities, and only mice and rats are sufficiently numerous to make nest cavities in any numbers. Nesting holes are thus very limited in number compared to those in the Old World.

Much mortality of young queens probably occurs in the winter hibernation sites. Sudden or prolonged flooding would probably drown many queens.

New Zealand winter weather conditions are generally milder and overall our daily temperatures fluctuate more than in England, thus a week or so of mild weather in early spring may initiate nest construction earlier than normal. A sudden cold snap could result in death of exposed queens through freezing, wetting and starvation.

In 1949, Cumber reported the existence of an overwintering nest of **B. terrestris** at Nelson. When excavated on 4th November the nest contained 40 young queens, and a total of 1,057 empty cocoons, which indicated that the nest must have been started the previous summer and had matured through the winter. In Christchurch, we have recently found a very large and mature nest of **B. hortorum** in October, and again the nest must have matured through the winter. Queens of **B. terrestris** can be seen on the wing in winter in most

lowland areas of New Zealand, and near Christchurch a few **B. hortorum** queens have been seen on sunny warm days in winter.

Competition with Honey Bees for Nectar and Pollen

Bumble bee numbers are very low in spring and early summer when nests are small, thus at this time of the year there must be very little competition with honey bees for food. Bumble bee numbers do increase rapidly in late summer, but by then the honey flow is well over, and in any case numbers are never very high in relation to honey bee numbers, except on red clover crops. Further, the long-tongued species obtain much of their pollen and nectar from flowers with deep corollas such as red clover and broad beans which are not preferred by honey bees.

Stings

As with almost all bees, the females (queen and workers) possess a sting. Many people claim that bumble bees do not sting but bite, but the fact is that the females can both sting and bite. In excavating nests we have found that **B. terrestris** can be fairly aggressive with workers often flying out of a disturbed nest to attempt to sting anything moving in the vicinity. The stings are longer than those of honey bees, and can be used repeatedly. Workers of both **B. hortorum** and **B. ruderatus** have not defended disturbed nests, and we have no experience with **B. subterraneus.**

Beekeepers may occasisonally find a dead bumble bee queen outside a hive entrance, and frequently with honey bee stings in it. The bumble bee has not been attempting to rob the hive. The presence of suitable nest cavities such as old mouse nests are often indicated at or near ground level by a tunnel entrance which usualy looks black within. Queen bumble bees will often investigate any dark recess which appears as if it may lead to a cavity within which the bee could build a nest, thus the dark entrance to a bee hive may often be entered in search of a suitable nest cavity.

Bumble bees in New Zealand are a very successful group of insects. From more than 238 liberated live queens the four species established, and of these, two species have occupied the whole country. Bumble bees seem to survive and nest in all habitats from dry Central Otago, over to the heavy rainfall areas of Westland, and up to humid warm Northland. The long-tongued species are very valuable as pollinators of red clover, and the short-tongued **B. terrestris** is at present very valuable because it is our only effective pollinator of lucerne despite its habit of biting through the base of bean and red clover flowers. There can be no doubt that through their pollinating activities, bumble bees have been and will continue to be very valuable to New Zealand agriculture.

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THE "COMMON" BEEKEEPER AND HIS PROBLEMS

The "Human Cost" of Production: The Time/Labour Factor

By M. Oksman, Argentina

This article is reprinted from "Apiatica", the journal of Apimondia, the International Federation of Beekeeping Associations and is one of the papers delivered at the International Congress of Apimondia in Buenos Aires, Argentina, last year.

The "Common" Beekeeper

As it is known, besides the essential elements, one can not speak about universal and uniform beekeeping management methods, but about methods adequate to different zones, fit to the local conditions.

This is a universally acknowledged truth, beyond any question; however, it should be given closer consideration — because, in order to avoid errors it is very important to make a true-to-fact delimitation of the zones in which one or another method is used: in one and the same zone various kinds of beekeeping may be practised, completely different from one another — both in terms of its aims and management methods, and to such an extent — that they have nothing in common any more but the fact that they handle bees.

At least three basic types of beekeeping exist: the beekeeping practised by **amateur** beekeepers, as a hobby — whose only aim is **maintenance**; the **scientific** apiculture whose object is **investigation**; and **commercial** beekeeping meant to provide **profit**. The latter includes in its turn two categories: the beekeeping practised by large units, and the individual one (even one-person management), practised by people who have an apiary and operate it themselves, making a living from it.

The latter, definitely distinguishing themselves from all the others, are the "common" beekeepers: neither hobbyists nor researchers — who do not earn their living from bee products, nor renowned commercial dealers — who do not work at all. The "common" beekeepers have their specific, some of them exclusive, problems entailed in the long run by the "overcharge" of hives per worker — which are of no concern to amateur beekeepers, unknown (or neglected) by research beekeeping, and also different in many respects from the problems by a large commercial unit; the problem of the "common" beekeeper must be necessarily taken account of when deciding upon the method to fit the specific conditions.

Undoubtedly, several of these problems are also of local significance only; therefore, I wish to specify from the very beginning that I shall refer especially to my experience of many years, in the northern part of the Argentinean province of Buenos Aires.

Brief Survey of the Activity of the "Common" Beekeeper all the Year Round

Passing over the winter period, being of no concern as yet, and considering the active season (both of bees and beekeepers), the strong contrast between its two stages stands out: during the first, when the apiary is being prepared for the flow and maintenance operations are performed — which is the most important concern in beekeeping practice, the beekeeper works just as in the Middle Ages: manually or by means of a few primitive tools: smoker, balance, brush. One may even assess that in this stage, the nowadays beekeeper works almost in the same manner as his "professional forerunner" of one hundred years ago, because his materials are the same, and — unlike the other human activities — no factor of modern technology can replace him, to substantially increase his labour capacity. In strong contrast to the first stage — the most significant, and which lasts for the longest time, during the second stage — when extraction is performed — mechanized equipment is used, as well as many very ingenious methods and devices enabling to almost unlimitedly increase the labour productivity of the beekeeper.

Consequently, the weak point of beekeeping practice is in the first stage, impeding heavily the smooth run and profitableness of the whole process because the fact that honey can be easily extracted from one thousand hives is of no use to the beekeeper while he is only able to efficiently handle 200-250 colonies. It is consequently obvious that without neglecting the improvment of extraction methods, we must focus the greatest attention on the possibility of increasing the beekeeper's labour productivity in the first stage of the season, striving to bring it to the level of the second one. To this end, we must thoroughly consider the fundamental factor — "time labour".

Our Cardinal Problem: the Most Rational Use of the Time/Labour Factor

Both elements are obviously critical indeed, as they define a rigid, narrow framework, often even suffocating, within which the work must be done, throughout the season.

It seems that — except only a few and valuable cases — this fundamental problem is not adequately considered in experimental apiaries where new beekeeping methods are devised as a rule; obviously because such problems do not arise there. Often specialists develop new methods thinking only to enhancing profits, paying not too much heed to the difficulties entailed by a complex or clumsy method for the beekeeper who usually works alone, has little spare time and a limited labour capacity.

I have indeed defined the "common" beekeeper as the one who owns an apiary, performs all operations by himself alone, and earns his living from it. And we have to add that in many cases he is neither young nor athletic; his labour capacity certainly has limits and therefore it must by no means be overrated. On the other hand, account being taken of the fact that the period of each operation is limited — for the same bees — to a specific number of days and is subject to a specific programme, because it can not be left for after the season and no "overtime work" can be performed either — it means that the beekeeper is "alloted" a relatively small "fixed quota" of work hours yearly, which he can not even use to his own will because he must keep pace with the order of compulsory operations and carry out all of them, in order to earn his living.

Considering both aspects, we find the answer to our double problem: to provide the "common" beekeeper with a method enabling him to efficiently attend to the greatest possible number of colonies within the modest "fixed quota" of hours, and within his limited labour capacity.

This special method should also enable him — if need be — to carry out all operations by himself alone, when he can not afford seasonal workers. My long experience in this respect shows that — at least in my zone — seasonal labour (permanent assistant workers are clearly uneconomic) which could as a rule help to cover all operations, is constantly scarce and expensive, and in many cases one can not trust it: the common day worker refuses to handle bees, and the one capable to do it — supposing we find one — demands very high wages. Consequently, the method which causes the common beekeeper to hire workers for the operations during the first stage, can by no means be suitable to his requirements.

In brief, the aim is not to obtain — by intricated and difficult methods — the maximum profit per hive, but the maximum productivity per beekeeper, which means to enable him to efficiently operate the largest possible apiary, within his labour capacity. And, as it is known that in this case mechanization is of no use and seasonal workers are not profitable, it is obvious that the only improvements to be made is to simplify to the maximum all operations, thus reducing the time required per bee colony, in order to enable the beekeeper to manage the greatest possible number of colonies within his two "quotas".

Thesis: Systematic Simplification of Beekeeping Methods

Throughout my beekeeping practice, I have been constantly facing the problem of simplifying what is complicated, of making shorter what lasts long and is weary, and of making easier what is difficult: I have developed — just like many other beekeepers — a method requiring less time, which has always been very efficient in my apiary, and in those of several friends who have used it as well.

I started by eliminating from the working plan everything which was not actually indispensable for an efficient management of a productive apiary; then, following tests during which I have successively divided the apiary in two groups — test and control — I decided which were the operations whose elimination causes substantial decline of profit. The rest were handled in two ways, according to the method we applied, recording the results as above:

For part of them, I tried to find the means by which to give the greatest possible autonomy to bees, so as several of the operations done by the beekeeper to be left with the bees; for the rest of them, with which this "transfer back" did not work, the difficult, weary operations taking a lot of time are replaced by more or less equivalent methods, easier ones, and which are performed more quickly.

Hence, we set out from the truth that almost one hundred thousand years ago bees lived and thrived with no assistance from any one, and that at present we, beekeepers have so much trouble in obtaining the very same result. I consequently suppose that we have so much distorted the natural development

of the wild bee colonies as it is now our duty to make them also develop normally under aftificial conditions we have imposed to them. Also necessary was to find out how could we transfer back to the colony, without causing it any prejudice, some of the operations it "knows" to do by itself.

Certainly we shall not superficially consider this as the outcome of bees' "intelligence": because, as is known, the instinct is "any knowledge prior to experience", hence innate, not learnt. I do by no means neglect the fact that "the natural interests" of bees, which govern the success or failure of the wild colony, do not coincide with our interests in many respects: the best colony — for the bees — is the most stinging one, the most heavily swarming one, and the one which does not store too much honey, because whether they do not manage to consume it all, the remainder amounts of several years will cram them to suffocation and they will have to choose between migration — thus loosing everything, and death.

However, there exists a broad sphere of activity within which the "natural interests" of bees are absolutely the same with those of the beekeeper; this is what we might call the homeostasis of the colony — its natural tendency to keep healthy, vigorous and thriving, its instant and perfect adaptation to the distinct stages of the annual cycle and to the environmental conditions even when unfavourable; its efficient defence against its enemies, its control of infection by "active cleaning", queen supersedure, and many other actions by which the colony solves, and can still solve, many of its vital problems.

Consequently — within this broad sphere — we may try to transfer to them a number of operations which previously were performed by them, being now carried out by the beekeeper. But for this we must change tactics altogether, and in order to keep them constantly carrying out the respective operations we must strive to induce the bees to perform them willingly, so that the beekeeper should only supervise them and take the proper steps only when necessary. In other words: the colony which goes on well does not need any assistance from him.

The author has investigated this in a brood chamber; he recorded the differentiated behaviour of the queen according to various depths of the hive body, aiming at inducing changes in the behaviour pattern.

An "Automatic" Brood Chamber

The care for the nest is one of the most important operations done by the beekeeper: he must help it develop in spring, and make the bees to use it to the full (by supplying them with foundations, re-stacking the hive bodies, etc.), also preventing the queen to reach the supers; later on, the nest must be restricted, and at last keep steady, very dense. Well, for thousands of years, bees have been carrying out this process most perfectly, by their own.

This is possible (I suppose) due to the phenomenon so frequent in biology— two antagonistic forces prevailing alternatively. In our case one is the natural impulse of the queen to walk up the comb (especially in spring when with the consumption of the food stores she is provided free way upwards), and the second one — the storing of honey above the nest (from the start of the flow on, the food stores "push" the nest downwards, reducing its area, preparing it for wintering).

I think that, by stacking supers on top, we brake the wise natural system; because the queen's impulse to walk up the combs loses its significance. And in order to keep it down, we must use the queen excluder (or any other equivalent method) and strive to make this operation be the least coercive possible, in order to allow the nest to develop in good conditions.

Hence, our problem is to re-establish, by any possible means, the spontaneous and natural processes in the nest; but to this end, we must find something else to replace (now the inexistent) "pressure of honey". Or this something else is precisely the queens' antipathy, against shallow hive bodies. Indeed, when having the possibility to choose, the queen always prefers the normal hive bodies.

This is a fact known for long time by the practical beekeepers who do not use queen excluders and have always used normal hive bodies, just because they knew that the queen never establishes her nest in them in a normal body exists beneath the former one. While, if the brood chamber is placed only in shallow hive bodes — see the photo taken by Fritz Albert of the Wisconsin University (GROUT — "The Hive and the Honey Bee", Ed. 1966, p. 347) the queen establishes the nest in the upper body, leaving the lower shallow supers for honey storage. It is obvious that the queen prefers the bodies providing larger room. So, if we take our usual double brood chambers (two large hive bodies stacked one on top of the other, which implies, among others, no end of very difficult "re-stackings") and replace the upper body with shallow supers, the colony will go through all development stages with no operation being made by the beekeeper. This means the process goes on by itself.

Early in spring, the nest will be at the bottom, while the shallow supers will be full of capped honey. When intensive brood rearing begins, the great consumption of stored honey, specific to this period, will cause appearance in the shallow supers of a high vault which the queen — having no more place in her favourite body — has to occupy; and so, by the end of the extension stage, the entire brood chamber will be completely covered by the brood nest, being not necessary to move the combs or to re-stack supers either.

Subsequently, the reduction of the nest and the migration to the lower body is done by bees alone, just like in primitive hives, because the "pressure of honey" was replaced by the queen's preference for the large lower body, to which she will walk down leaving the hateful (to her) shallow supers to be filled with honey by bees.

In short: we turn back to the self-management of the wild colony, also taking advantage of the rational management.

I have recorded the above mentioned for more than 36 years, in hundreds of hives, with no exception.

An Efficient Method of Inspecting the Hive Without Opening it

Even if using the natural self-management of the brood chamber as shown above — thus attaining our first aim namely that healthy colonies can live long with no assistance by the beekeeper — we still have obtained nothing practically, whether we open all hives in order to inspect them. Therefore, it is necessary to also add to the "brood nest in shallow bodies" one more method enabling us to know quickly and simply, and also without opening the hives, whether bees' condition is normal and do not require us, or when it is not normal and require our assistance.

In order to perform this quick control, the author decided to use — alongside with other indices — the very important factor, which is inexplicably disregarded, namely pollen load which is — except a certain minimum level which we can neglect — directly proportional to the amount of sealed brood in the colony.

Every one must know the five conditions indispensable to a colony for developing normally: enough room for the nest, an efficient queen, strong population, good health, and enough honey. And, by considering — as we do indeed —the brood nest and the "pollen factor" we can ascertain the five conditions we need without opening the hive, because:

Room is indeed assured by the fact that the brood nest lies in the shallow bodies.

Identification of Presence of the Queen and Evaluation of Her Efficiency by the "Pollen Factor"

It is generally assessed that a strong population is the guarantee of an efficient queen. Nothing more erroneous; at least this could stand proof of the fact that the queen did exist several weeks before. On the contrary, the pollen load shows the actual present needs of the colony namely the feeding of the brood — reflection of the queen; moreover, if much pollen is brought into the hive, in heavy loads and in a hurry, this is an unfailing indication (as I have ascertained it throughout my experience up to now) that there is indeed a queen in the respective hive, and an excellent one at that. While, when pollen loads are scarce, light and bees are unconcerned, it means that if there is a queen in the hive, it is an inefficient one.

The other conditions can be checked to the common practice:

The strength and health of the population can be controlled at the hive entrance, and the food stores can be known by weighing the hive.

Hence, we can find out the five conditions without opening the hives, which allows for quickly identifying the abnormal colonies without being necessary any more to make long and weary inspections of all hives; we can thus focus our attention only on the abnormal colonies, while the rest of colonies in the apiary cntinue their activity with no assistance from the beekeeper. Thus, he not only has less work to do, but also does it better, because thanks to this method the attention is focused only on the colonies requiring it, instead of dissipating his effort on colonies which do not need it.

Complementary Methods

Although the combination of the "self-managing" brood nest and the quick checking method substantially reduces the time/labour factor necessary for a colony, as it is but natural, complementary, simplified procedures exist, which we shall briefly outline.

Both queens and combs are replaced whenever necessary: combs can be used for many years with good results. With respect to the queens, we must first take into account the supersedure which, according to my experience, occurs much more often than we would believe. As a matter of fact, the young age of the queen is not always a guarantee of high efficiency; young queens are sometimes inefficient while older queens are excellent. Moreover, several matings make sometimes for a queen to be more prolific with the passing of time, because "it comes the turn" of the sperm from a top quality drone.

This clearly proves the so often mistake of replacing queens only according

to their age; and, as the methods used enable us to immediately identify any sign of queen's efficiency, there is no problem in this respect, all the more so as we also use a quick re-queening method.

Quick Re-Queening Method

One can indeed re-queen instantly, by means of a "compensating nucleus" prepared previously for this purpose, which is simply joined by the method of a sheet of paper — to the colony which we must re-queen.

It is obvious that the method has several advantages; it is more quick and easier; the finding of the queen to be replaced — which is often quite difficult — is thus avoided; egglaying is not interrupted; the nucleus with the new queen is of an efficient, compensating help, because it enables the colony to recover and yield a normal crop, even just before the flow begins — when the re-queening alone would be of no use.

Only eight frames are placed in a hive body, either normal (when queen excluder is used) or shallow (when no queen excluder is used); in this way, 20 percent material and labour is saved per kg of honey, and more wax is obtained without diminishing the crop.

During the flow, the empty supers are stacked on top of the full ones, instead of placing them under the former — as it is still current. The profit is the same, and labour is saved — the moving of several tons every season.

During winter, the empty supers are left on top of the hive. This is another operation we "transfer back" to bees: they creditably fulfil it, and the beekeeper saves the time and labour he would have spent for taking them out (usually by robbing), carrying them to an adequate storage room, taking care of them throughout winter, and carrying them back to the apiary.

There also exist other procedures — simplified prevention of swarming, solving of doubtful situations, immediate and rigorous elimination of cases of laying workers, simplified forming of nuclei, etc. — which provide for a substantial extra time labour saving. This set of combined methods, with obvious intensive character — which we might more properly call extensive — assure quite highly efficient management, of an ever increasing number of colonies.

To Summarize:

Instead of striving to obtain higher honey production by increasing the yield per hive, the author has somehow travelled the way back: setting certainly out with high quality queens and equipment, he strived to maintain the profit at the same level, by reducing to the lowest possible level the "human cost"—by considering the time/labour factor necessary for production of one kg of honey, this method being the only possibility of making up for the time and labour capacity limits of the "common" beekeeper, especially in the first stage of the season, and of operating more colonies/worker. In this way, with the same profit per unit, several crops can be obtained by one beekeeper (whose income and living standard will thus be higher), which in the long run means a higher apicultural production.

The methods suggested provide for ever greater "self-management" of colonies, up to leaving the colonies which develop satisfactorily to manage by themselves. For many years I have noticed a phenomenon which I consider worth mentioning: many of the colonies in "good condition" kept always as such; many cases were recorded of colonies which would yield a higher crop

(Cont'd on page 65)

INSECT POLLINATION

By E. E. McGregor, U.S.A.

This article is reprinted from "Apiatica", the journal of Apimondia, the International Federation of Beekeeping Associations and is one of the papers delivered at the International Congress of Apimondia in Buenos Aires, Argentina, last year.

The insect pollination problem is no longer limited to isolated growers of fruit, vegetables, or legumes. It has reached international significance and should receive this consideration in the service that is performed.

Worldwide, only 12 plants furnish nearly 90 percent of our food. These are: banana, barley, cassava, coconut, corn, the millets, potato, rice, rye, the sorghums, sweet potato, and wheat. Of these, only coconut is even partially benefited by insect pollination.

This would indicate that insect pollination plays a minor role in man's diet, affecting possibly no more than one percent of his food supply. Such is not the case. For example, in the United States of America about one-third of the diet is derived, directly or indirectly, from plants dependent upon or benefited by insect pollination. Several other countries of the world have similar diets, but many fall far below. Even within countries boasting adequate diets there are areas and ethnic groups whose diets lack the necessary proteins, carbohydrates, fats and oils, minerals, and vitamins that food experts recommend for adequate body growth and maintenance. If the diets of these people are to be improved there must be an increased production of many insect-pollinated crops.

Effect of Insect-Pollination on Our Environment

The benefits derived from insect-pollination are not limited to cultivated crops. The absence of these beneficial insects would have a drastic effect on the non-cultivated areas, because most of the soil-holding and soil-enriching plants would disappear. Furthermore, without insect pollination to produce the fruits, berries, and other seeds on these non-cultivated plants, essential to a well-balanced wildlife population, many forms of wildlife would disappear. Insect pollination is an essential link in our global ecological chain.

Aethetically, even if wild flowers and ornamentals were not essential to the ecological balance of the environment, our springtime would be drab indeed without them. Many of these plants are dependent upon insect pollination, and they would disappear from our landscape without these benefactors. Numerous ornamentals, deriving their beauty from colourful fruits, nuts, or berries, would loose their attractiveness in the absence of pollinating insects.

More Insect Pollinators — BEES — are Needed

When we speak of insect pollinators we mean, primarily, bees. Numerous orders, families, genera, and species of insects contribute in some degree to pollination, but bees, those insects that methodically provision their nests with pollen and nectar, are best. Although honey bees are general purpose pollinators, and less efficient on some crops than certain species of wild bees, they are manageable, worldwide, and generally effectiv on most crops. So, when we speak of bees, internationally, we mean honey bees.

Within the U.S.A. there are about 3.5 million acres of fruits, vegetables, oilseeds, and legume seed crops that are largely dependent upon insect pollination. Another 63 million acres are devoted to crops that derive some benefit from insect pollination, for example, citrus, cotton and other oilseed crop, soybeans and other legumes. There are less than five million colonies of bees, and less than one million of these are actually transported to specific crops for pollination purposes. Based on present knowledge, which is admittedly far from complete, there is need for five to possibly 20 times the number of mobile colonies that are presently available. And yet there is probably a higher percentage of mobile colonies in the U.S.A. than in any other country.

If there is a shortage of colonies in the U.S.A., consider the situation in the other areas of the world where cacao, cashew, coconut, coffee, cotton, mango, mustard, niger, rape, sunflower, and numerous other crops are grown, in some instances where honey bee colonies are scarce. The need for an adequate supply of colonies for those crops must approach several times the world's current supply.

Need for More Information on Crop Pollination

We know relatively little about the pollination requirements or the pollinating agents for many important world crops. For example, the mango is eaten by more people in the world than any other one fruit. The mango flower is apparently insect-pollinated, but there is little information on its pollinating agents or the method of management of these agents for maximum fruit set. Nothing is done now in the way of altering the pollinator population on this important crop to increase its fruitfulness.

The vanilla plant, which yields more than three million pounds of vanilla extract annually, is entirely hand-pollinated. This tedious task accounts for 40 percent of the entire cost of producing this crop, yet vanilla came from Mexico where it was believed to have been pollinated by wild bees and birds. Possibly the concentration of numerous colonies of honey bees per acre of vanilla might "force" the bees to pollinate the flowers, at a tremendous saving in the total cost of production.

In the Philippines there are 2.5 million acres of coconuts, the major crop of that country, more than one-fourth of the world's supply. The literature indicates that bee pollination can increase coconut production. But in the Philippines there occurs a certain bee mite that destroys the bee colony. Research leading to control of this mite could, in turn, lead to a stable bee industry. This, in turn, could result in increased production of coconuts and improve the economy of the country.

To obtain the necessary supportive information, there should be a continual press, in many countries, for research on crop pollination by insects. This research should be conducted by agronomists, entomologists, and horticulturists as well as by apiculturists. There should be economic studies to determine costs and benefits from the use of bees, so that both grower and beekeeper can be assured of adequate profits. The studies should determine not only the need for bees on the crop but also the bee population deemed adequate for highest economic pollination and production of the crop.

The Problem of Direct Beekeeper-Grower Relationship

The beekeeper is adept at handling bees, but he is not a marketing specialist. When he agrees to rent bees to a grower he usually has his eye on the honey

crop. He may charge a low fee, believing that the bees will prosper while providing their services to the grower. Thus the fee is established.

Another grower, in a less favourable location for bees, or wanting them at a different time of the year, may fail to understand the relationship of the bees to the honey crop, but he wants to obtain them at the same fee paid by his neighbour. The beekeeper, being unwilling or unable to explain the intricacies of bees and honey production, accepts the original fee. Then, knowing that he cannot make a profit on the deal if he provides adequate colonies and service, the beekeeper uses his weaker colonies or fails to adequately service them. As a result, the pollination of the crop is inadequate, the grower becomes dissatisfied and changes to another crop, and ultimately both parties suffer a loss.

Strangely, it is more often the beekeeper who is reluctant to charge the grower an adequate fee rather than the grower's reluctance to pay a higher fee. The beekeeper may believe that if the news gets out that he is getting a higher fee, other beekeepers will move into his "territory", undercut his price, and usurp his apiary sites. This is the more astounding when we realize that the potential demand for bees far exceeds the supply.

An International Pollination Service

There have been several pollination services, usually headed by beekeepers, and in general beekeeper oriented. Unless the service gives equal consideration to maximum economic crop production for the grower as well as a fee that is adequate for the beekeeper, it must fail. Usually these services are not adequately informed on the best usage of bees and their appropriate fees.

The time appears appropriate, therefore, for an international pollination service, advisory to and co-ordinating with local and regional pollination services. The Service could be sponsored by Apimondia, the International Society for Horticultural Science, and numerous national Crop Science societies. Its board of directors should consist of specialists in agronomy, apiculture, horticulture, and agricultural economics. Its primary concern would be the well-being of both the beekeeper and the grower. As such it would utilize the most complete and up-to-date information available on usage of bees in pollination of the crop. It would recommend to its local and regional pollination services the appropriate pollination fees, the colony number, strength, and proper usage for maximum income for both grower and beekeeper.

Such an organization would tend to stabilize pollination fees and services, and ultimately result in a better diet for all mankind. For this reason we believe that the United Nations or the World Health Organization would give support to Apimondia and the associated organizations in initiating of this Service.

THE "COMMON" BEEKEEPER AND HIS PROBLEMS

(Continued from page 62)

for several years running with no other assistance by the beekeeper but the adding and taking away of supers.

It results that each colony has a kind of "co-efficient of capability" of constantly maintaining itself in perfect condition by its own means, the co-efficient including inter alia its capability of superseding the queen whenever necessary and always successfully, which is a hereditary characteristic.

I think that thorough investigation of this aspect of bees' qualities might be of great interest to geneticians who are seeking to obtain "better bees".

BRANCH NOTES

SOUTHLAND DISTRICT

Winter has arrived and bees are well locked away. The season has been above average in most areas although Central Otago, Te Anau Basin, Northern Southland experienced bad droughts and little honey was extracted in this area.

With preliminary results of the **Nosema** survey out it is disturbing to note that the southern area of New Zealand has recorded the highest average incidence. With this in mind the feeding of substitutes mixed with Fumidil B is becoming more important. Particularly with more and more pollen sources being lost to bees by modern day farming practices. The heavy feeding of sugar syrup may perhaps have a bearing on the incidence of **Nosema** also.

The proposed setting up of a Queen Breeding Unit has been progressing slowly and is still a viable project. With last year's shortages in mind this must be kept to the fore.

The shortage of sugar, A1 and raw, is causing many headaches. Approximately 130 tonnes are needed in this area and to date very little has arrived. With August just around the corner it is essential that supplies arrive shortly. If no sugar is forthcoming losses will be heavy and many beekeepers will be put under financial difficulties. [See President's Report, this issue.—Ed.]

This year's Seminar will be held on Friday, 20th September, in Gore. The tentative programmes of speakers is:

MORNING SESSION

Mr Rankin, R.A.O., Ministry of Agriculture and Fisheries.
District Appraiser, State Advances of N.Z. Corporation.
Mr Weldon, Health Department.
Speaker to talk on Estates, Trusts, Wills, etc.

AFTERNOON SESSION

David Penrose: "Sugar Feedings".
M. Reid: "Nosema".
T. G. Bryant: "Profitable Beekeeping".

It is also hoped to have Mr C. Rope, Honey Grader, present. If not, a suitable replacement will be arranged.

All beekeepers are invited to attend. Programmes will be made available by writing to the Ministry of Agriculture and Fisheries, Box 20, Gore.

—T.G.B.

SOUTH CANTERBURY

Annual and General Meeting held on 14th May.

Tribute was paid to the late Mr Lon Lyttle by members present at the meeting.

An interesting account of sweet clover work was given by our Apiary Instructor, Vincent Cook.

Autumn rains have left South Canterbury the wettest for 10 years. Most hives settled into winter with better than average stores, although sugar was fed when obtainable to lighter hives.

Some beekeepers experienced difficulty in getting into remote sites due to the unusually wet season. At the time of writing the country has shown no signs of drying out. Spring will most likely bring its problems of soft paddocks. However, because of the amount of moisture about, next season could be the good one we are always looking for.

An interesting account in the "Australian Beekeeper" of some beekeepers sitting in their truck with a load of hives waiting for the rain to stop and weather improve. After waiting and heavier rain, a council of

war was decided to unload the hives modern style, by stripping to their boots and leaving all their dry clothes in the cab. Needless to say, all records were broken for off-loading the bees.

—Alister Lee.

WEST COAST

The winter, generally, has been fine and mild up to mid-July. This seems to have favoured the wasps and not the bees in some areas.

A beekeeper in Ross had considerable difficulty in destroying a very large nest which was embedded deep down amongst the stones of a huge heap of dredge tailings. This nest has been working his hives over systematically, one at a time.

It appears that beekeepers who sell honey at the door are supposed to stamp their brand and name and maximum retail price on the containers. All could be done if suitable ink could be procured (as it was in the past) and if the correct maximum retail price which is to be used was supplied by someone in authority. One beekeeper at least has tried most likely places to obtain these without success.

The uncertainty of sugar supplies has been causing some concern to beekeepers who have ordered large numbers of queens with the intention of increasing hive numbers. According to some, if the right quarters are approached, there should be no difficulty.

At the last local meeting some confusion existed as to voting when considering remits. The secretary probably developed a headache sorting out the floor votes, poll votes, and votes for and against. Some are still confused as to the correct procedure.

We all hope Ralph and Mrs Glasson are having or have had a rewarding trip overseas.

Peter Lucas.

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Literary contributions and advertisements must be in the hands of the Editor, Mr N. S. Stanton, P.O. Box 4106, Auckland, not later than the 25th of the month preceding publication.

Nome-de-plume letters must be signed by the writer and address given, not necessarily for publication, but as proof of good faith. Letters accepted for publication do not necessarily express the views of the Editor or the Executive.

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FRONT PAGE STORY

Robin's Sweet Number

Robin Jansen working his apiary under the shadow of Mt Tongariro where the purple Scottish heather provides nectar for his bees right through to the end of March.

Some of the 800 hives he trucks into this area each year will have previously been working as far away as Rotorua and Kawerau. Some will have moved three or more times and some will have been "robbed" several times to provide a variety of types of honey which are available in his area.

From the story on page 39 it will be clear that Robin has developed the art of migratory beekeeping to a degree which is not usual in New Zealand. Perhaps his story could be a lesson for others who have seasonal and weather problems.

That this ling heather honey is able to be sold at a premium is also a lesson in extracting and marketing which other beekeepers might learn from.

Most of the story on page 39 has appeared in the daily press in different areas. It is published for many who have not seen it, including our overseas readers.

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