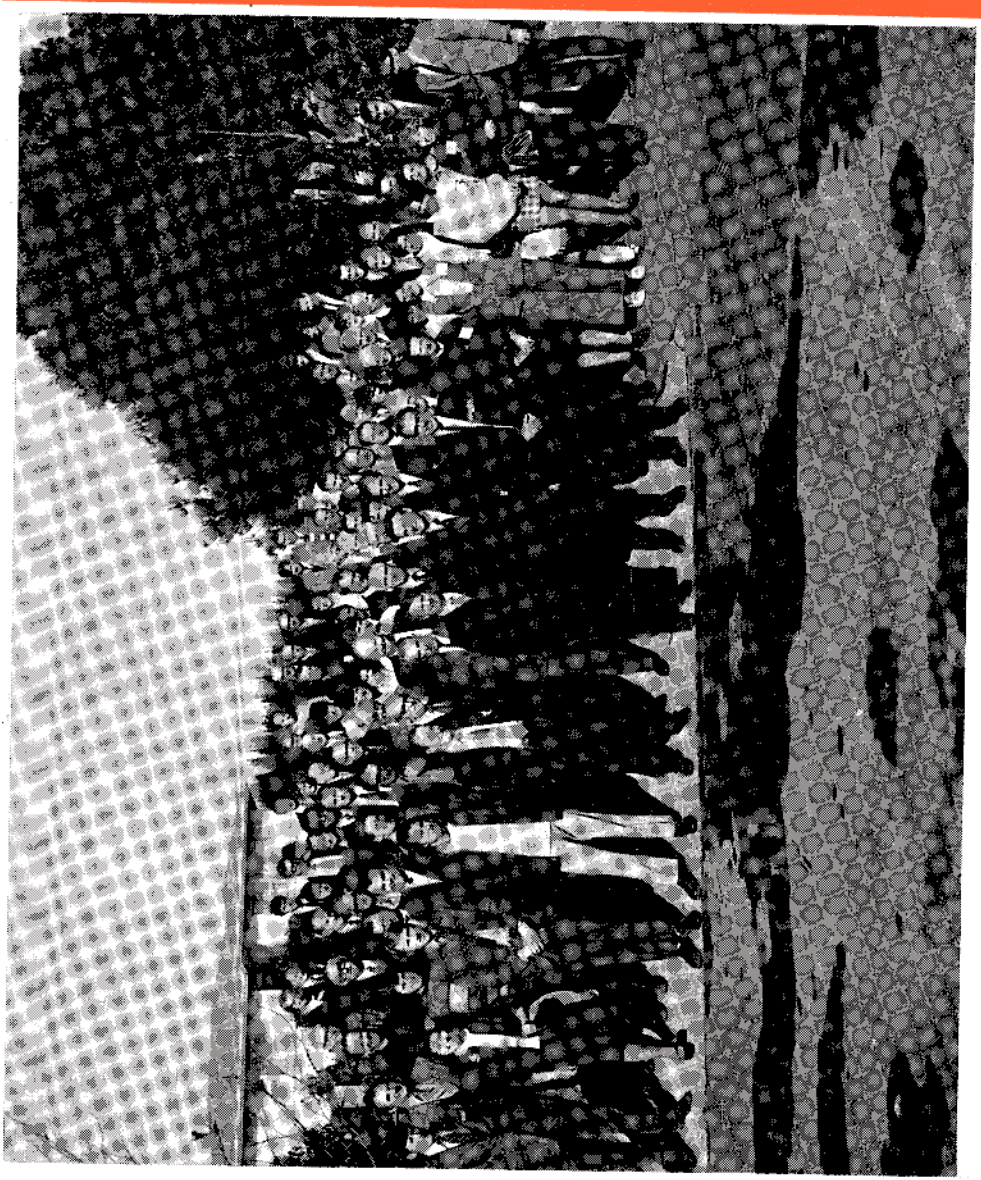
THE NEW ZEALAND BEEKEEPER

August 1972



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CONTENTS

THE INDUSTRY is not exactly back to square one, but Conference consideration and deliberation on the Caucus Report mean that there is still a great deal of constructive action yet to be taken after all the talking.

Certainly there can be no mistaking the will of Conference, representing a wide cross-section of the beekeeping industry, that the Remit from Hawkes Bay was not acceptable. Remit No. 1 on the order paper that the Caucus Report be implemented 'en bloc' was crushingly defeated on the Delegates' vote.

Unlike previous Conferences there were few displays of histrionics and sarcastic comment, and personal abuse of non-conformists was at a minimum. It may well be that delegates were acutely conscious of their responsibility, realising full well that decisions taken in Kaitaia would affect the livelihood of the whole industry for many years to come. The new President and Executive of the National Beekeepers' Association will have a hard row to hoe, for the problems which beset the industry now are not new and so far have escaped solution.

Perhaps the most important objective of the new management must be to make an all-out effort to attain unity within the ranks, and colate the numerous splinter groups under the one banner of the N.B.A. to work out the industry's salvation. Under ideal circumstances, eradication of the problems involved cannot be easy, but a disunited collection of splinter groups will render the task virtually impossible.

Run honey producers, comb honey producers, packers and would-be exporters et al are all in one industry. The common objective is to sell top quality honey at top prices. The old Trade Union slogan 'United we stand, Divided we Fall' is a point worth taking.

National Beekeepers' Association

DOMINION CONFERENCE

at Kaitaia July 1972

DESPITE THE DISTANCE FROM OTHER CENTRES OF NEW ZEALAND, A HEARTENING ATTENDANCE OF 130 DELEGATES ATTENDED THE OPENING OF CONFERENCE 1972 AT KAITAIA IN THE FAR NORTH ON WEDNESDAY, JULY 5.

HOTELS AND MOTELS WERE FULL TO CAPACITY IN THE CENTRAL AREA, AND SOME PROPRIETORS WERE HARD PUT TO PROVIDE THE SERVICE THEY EXPECTED TO PROVIDE BECAUSE OF AN EPIDEMIC OF MILD INFLUENZA IN THE DISTRICT. SOME WELL-MEANING AND PERHAPS ENVIOUS COMMENTS WERE MADE BY DELEGATES FROM THE FROZEN SOUTH THAT THE WEATHER WAS NEVER SUFFICIENTLY COLD TO KILL OFF 'THE BUGS'! A GREAT DEAL OF EFFORT WAS MADE BY A SMALL BAND OF PEOPLE INTENT ON SEEING THAT, FOR THEIR PART, CONFERENCE WOULD BE MEMORABLE, AND THEY CERTAINLY SUCCEEDED IN THEIR PROJECT.

THERE MAY BE SOME JUSTIFICATION FOR FEELING THAT THE "WINTERLESS NORTH" IS A MISNOMER, FOR WHILST THE TEMPERATURE MAY HAVE BEEN A LITTLE HIGHER THAN FURTHER SOUTH, THE RAINFALL WAS ALSO IMPRESSIVE AND THE THUNDER IN THE EARLY HOURS UNDOUBTEDLY ALARMING. UNFORTUNATELY, THE AIRPORT LANDING STRIP WAS SO INUNDATED THAT PLANES WERE UNABLE TO LAND ON THE TUESDAY PRECEDING CONFERENCE, NECESSITATING A LONG AND TIRING ROAD JOURNEY OF 90 MILES FROM WHANGAREI.

NOTWITHSTANDING THE ADVERSE CLIMATIC CONDITIONS, EVERYONE WAS MADE TO FEEL MORE THAN WELCOME AND THE FAR NORTH BRANCH PROVIDED A SERVICE TO THEIR FELLOW BEEKEEPERS WORTHY OF THE HIGHEST COMMENDATION. EVERY PLANE AND COACH WAS MET AND VISITORS ESCORTED TO THEIR HOTEL. IN CO-OPERATION WITH THE LOCAL BUSINESSMEN'S ASSOCIATION, GOLD AND BLACK STICKERS IN THE SHOPS, BANNERS ACROSS THE MAIN THOROUGHFARE AND PUBLICITY IN THE NEWSPAPERS HERALDED THE FACT THAT CONFERENCE WAS IN SESSION IN THE TOWN.

A GREAT DISAPPOINTMENT TO ALL WAS THE ANNOUNCEMENT THAT THE PARLIAMENTARY SECRETARY TO THE MINISTER OF AGRICULTURE WOULD NOT BE PRESENT TO OPEN CONFERENCE AS HAD BEEN INTENDED, DUE TO BUSINESS IN THE HOUSE. AS CONVENOR OF THE CAUCUS COMMITTEE WHOSE RECOMMENDATIONS HAVE NOW BEEN PUBLISHED, THERE WOULD HAVE BEEN SOME FIRST HAND QUESTIONS AND ANSWERS TO BE EXPECTED. HOWEVER, WITH THE CO-OPERATION OF THE POST OFFICE, TECHNICIANS AND LINESMEN INSTALLED AMPLIFIERS AND LOUD SPEAKERS TO ENABLE MR A. D. DICK, MP TO SPEAK TO CONFERENCE DIRECT FROM WELLINGTON AND FOR THE

NATIONAL PRESIDENT, MR BRUCE FORSYTH, TO FORMALLY INTRODUCE MR DICK. THE LATTER ALSO HEARD APPLAUSE OF CONFERENCE MEMBERS AT THE CONCLUSION OF HIS SPEECH.

MR DICK'S TALK TO THE INDUSTRY IS PUBLISHED ON AN ADJOURNING PAGE.

WHILST THE PERSONAL APPEARANCE SCHEDULED WOULD HAVE BEEN MOST WELCOME, THE LAND-LINE FACILITIES PROVIDED BY THE P. & T. PROVIDED A 'FIRST TIME' OCCASION FOR THE INDUSTRY TO BE SO ADDRESSED BY A PROMINENT PARLIAMENTARIAN. IT WAS PERHAPS FORTUITOUS THAT PRESSURE IN THE HOUSE PRECLUDED A PERSONAL ATTENDANCE, FOR WITH THE AIRPORT CLOSED TO TRAFFIC, IT IS MOST UNLIKELY THAT MR DICK WOULD HAVE BEEN ABLE TO REACH CONFERENCE ON THE OPENING DAY.

DESPITE THE WORK AND WELCOME PROVIDED BY BRANCHES IN REMOTER AREAS, IT IS ABUNDANTLY CLEAR THAT THERE IS MUCH TO BE SAID FOR THE CONFERENCE VENUE TO BE ARRANGED IN MORE CENTRALISED AREAS WITHIN EASY ACCESS OF BOTH ISLANDS. WHILST A LARGE NUMBER OF BEEKEEPERS SET ASIDE CONFERENCE TIME TO BE A BUSINESS-CUM-HOLIDAY VENTURE COMBINED, THERE IS THE UNDOUBTED FACT THAT TRANSPORTATION COSTS WITHIN THIS COUNTRY ARE HIGH FOR THE FAMILY MAN, AND A GREAT EXPENSE TO ORGANSIATIONS SUCH AS THE NATIONAL BEEKEEPERS' ASSOCIATION AND THE HONEY MARKETING AUTHORITY WHOSE OFFICIALS GIVE TIME BUT MUST OF NECESSITY HAVE THEIR EXPENSES PAID BY THE INDUSTRY.

WITH THE KNOWLEDGE THAT MR DICK WOULD BE FORMALLY OPENING CONFERENCE AT 3 PM, THE ORIGINAL SCHEDULE COULD NOT BE ADHERED TO, AND FOLLOWING A BRIGHT AND INTERESTING WELCOME BY THE CHAIRMAN OF THE MANGONUI COUNTY COUNCIL MR M. SRHOJ, APOLOGIES WERE TAKEN FOR ABSENCE, AND THE ASSEMBLY STOOD FOR A FEW MOMENTS IN MEMORY OF SEVERAL PROMINENT BEEKEEPERS KNOWN TO HAVE PASSED AWAY IN THE PRECEDING TWELVE MONTHS.

THE PROCEEDINGS OF LAST YEAR'S CONFERENCE HAVING BEEN MOVED AND ADOPTED, THE FOLLOWING WAS RAISED UNDER MATTERS ARISING:

WAIKATO: "THAT THIS CONFERENCE OF THE NBA IN PURSUANCE OF THE RESOLUTION CARRIED OUT AT THE ANNUAL MEETING 1971, REQUIRE THE INCOMING NATIONAL EXECUTIVE TO UNDERTAKE A POSTAL BALLOT WEIGHED TO REFLECT HIVE HOLDINGS OF MEMBERS TO ASCERTAIN THE SUPPORT WITHIN THE INDUSTRY FOR THE ESTABLISHMENT OF THE LEVY." CAREY/HANSEN) CARRIED.

THE GENERAL SECRETARY DREW TO THE ATTENTION OF CONFERENCE AN ERROR CONTAINED IN THE DECLARATION FORM PUBLISHED IN THE MAY 1972 EDITION OF THE NEW ZEALAND BEEKEEPER IN THAT ON PAGE 4 OF THAT ISSUE THE DECLARATION AS TO SUPPLY GAVE THE RELEVANT DATES AS JUNE 30, 1970 AND JUNE 30, 1971, WHEREAS THOSE DATES SHOULD HAVE BEEN PRINTED AS 1971 AND 1972 RESPECTIVELY. HAVING EXPLAINED THE ERROR AND COMMENTING THAT ALL BRANCH SECRETARIES HAD BEEN SO NOTIFIED, CONFERENCE WAS TOLD THAT THE FORMS WERE TO BE USED AS THOUGH THE DATES WERE CORRECT AND THAT, IN FACT, MANY BEEKEEPERS HAD THEMSELVES NOTED THE ERROR AND MADE CORRECTION TO TH DATES. IT WAS NOTED THAT THERE WERE NO COMMENTS FROM THE FLOOR OR DISAGREEMENT WITH THE PROCEDURE UNDERTAKEN.

REPORTS

Reports for the year were tabled by Mr Tom Pearson the N.B.A. delegate on the Agricultural Chemicals Board, by Mr Trevor Palmer Jones, scientist at Wallaceville, Mr Eric Smaellie, Superintendent of Beekeeping, Mr Chris Dawson the honorary librarian, Mr Russell Poole, chairman of the H.M.A. and Mr K. Herron for the Packers' Association. Reports in full or abridged form will be published in this and subsequent issues of the journal.

LIFE MEMBERSHIP

Conference unanimously and enthusiastically endorsed Executive's recommendation that Life Membership be bestowed on Mr R. S. (Bob) Walsh for his meritorious service to the beekeeping industry. Tribute was paid by a number of beekeepers who had good cause to be grateful to Bob for his unfailing assistance to commercial and amateur men alike, and it was noted with regret that Bob was away in the Islands and would not be able to accept the presentation in person. The bestowal was accepted in absentia by Mr Eric Smaellie who undertook to forward the certificate.

MR DICK'S SPEECH

At a few minutes to 3 pm the National President Mr Bruce Forsyth welcomed the Hon. A. Dick, Parliamentary Under-Secretary to the Minister of Agriculture to speak to Conference by land-line, and Mr Dick replied as follows:

It is with sincere regret that I am not able to be with you at Conference today, because this will probably be one of the most crucial Conferences ever to be held in the history of your industry. You have a report before you as a basis for discussion. Many decisions will probably be made, and as author of that report, I was looking forward to free and open discussion with you.

This address is rather shorter than the one I delivered at Greymouth — but, circumstances have changed. Last year I sensed that the industry was in a state of unrest; there was a lot of talk about, and consequently I convened a Commtitee of Caucus to investigate the industry as a whole. You now have that report, the ball is in your court, and I await with a great deal of interest the results of your deliberations at Kaitaia.

This will undoubtedly be a most important Conference, the results of which will have far-reaching effects for many years to come.

FIRST IMPORTATIONS:

Previous to the year 1938 no variety of hive bee existed in New Zealand; consequently the earliest settlers could not avail themselves of any portion of the abundance of nectar so freely secreted in the native flora.

It may be of interest here to note that it was on March 13, 1939, the first hive bees were landed at Mangunga, Hokianga — not very far from where this Conference is being held today. There were two colonies in straw skeps. They were brought from England in the sailing ship "James" by Miss Brumby sister of the Rev. J. H. Brumby, one of a party of missionaries. The next earliest introduction of bees recorded were those by Lady Hobson from New South Wales in 1842 and by the Rev. W. Cotton, chaplain to Bishop Selwyn, also in 1842. It was from these beginnings beekeeping in New Zealand developed, first as a cottage industry, and then later into the industry as we know it today.

BEEKEEPING AND PRODUCTION:

The beekeeping industry is not one of the major primary industries, but it is important to our economy for the production of about 5,300 tons of honey annually, also for the national service it provides for pollination of our agricultural and horticultural crops. Latest beekeeping statistics for the Dominion show a total of 3,228 beekeepers owning 14,345 apiaries and 200,774 hives. This total of hives is the highest on record. Comparison with statistics compiled during the past 10 years show that hive ownership has moved towards larger holdings, also a trend towards concentrating ownership in the "over 1,000 hives" bracket. It is interesting to note that from an increasing number of hives during those 10 years the total honey produced annually remained relatively constant at about 5,300 tons. This indicates a reduced average production per hive.

Many commercial beekeepers have expanded their hive numbers to counteract this less production per hive in order to maintain or increase their overall returns. The reduced yields per hive are attributed mainly to changed farming practices with more cropping and controlled grazing of pastures, also to weed eradication programmes resulting in a reduction of nectar-secreting plants. However, there is evidence that some beekeepers with enlarged holdings are now operating more hives that are not fully productive because of less intensive management of their apiaries.

RESEARCH:

The Apiculture Section of the Wallaceville Animal Research Centre deals with research problems affecting the beekeeping industry. New Zealand beekeepers are spared the constant and heavy losses of bees which occur in som overseas countries such as the U.S.A. and Australia. Apart from the help offered by our protective legislation it is fair to claim that this fortunate state of affairs is largely due to the great amount of time spent by the Wallaceville Apiculture Section in studying the effect of pesticides on bees.

It cannot be assumed that the results of overseas work on pesticides apply locally; firms may wish to market promising new compounds on which information is scanty; and the Agricultural Chemicals Board relies on Wallaceville for information. A close liaison is maintained with local scientific workers engaged on pest control, enabling newly-developed pesticides under test for control of clover case-bearer moth, grass-grup, etc., to be also screened for honey bee toxicity. The role played by bees in pollinating the main seed crops and fruits is being investigated at Wallaceville. Development of more effective ways of using bees for pollination, resulting in increased seed and fruit yields, stems from such studies. Work has been completed on white clover, lucerne, Montgomery red clover, and apple trees. Currently, the pollination of sunflowers is being examined.

The economic worth of various beekeeping operations such as swarm control, and using cane sugar instead of honey for winter stores, has been investigated from Wallaceville on statistical lines. This work should be of particular importance to the beekeeping industry at the present time when operating costs are fast increasing. In April 1971 the Apiculture Section at Wallaceville examined samples of bees from a survey of hives and swarms in Tonga. The survey was of limited scope, being carried out only on the main island, Tongatapu, the numerous small islands nearby being excluded. A special permit was issued to allow the bees, dead and preserved, to be brought into the country. Strict quarantine procedures were observed. A hitherto unknown large mite was found on bees from three hives. This mite belongs to the family Ascidae, many of which are predaceous upon immature insects. Such mites attack sealed and unsealed brood in South-East Asia. The discovery of this mite shows the great risk attendant on importing honey bees into New Zealand from overseas.

CAUCUS COMMITTEE REPORT:

Last year I announced my intention to set up a Committee of Government caucus to enquire into the honey industry. The report of this committee was published and copies were sent to all producers owning 30 hives or more. I hope that the Committee's findings and recommendations will evoke useful discussion and assist the industry to look at its problems in a new perspective. I should like to see the recommendations studied in depth, with a view to determining what is best for the industry as a whole. All members of the industry will have had the opportunity to discuss the report, its findings and recommendations, at local Branch meetings. They should also have had the outlines of a proposal by the Authority to have the Authority re-constituted

as an administrative body. Delegates should have come to this Conference with a clear indication of the views of their branches on the various issues. In the summary of recommendations pertaining to the Secretary of Industries & Commerce becoming the approving Authority for exports of honey — I have discussed this matter with both the Ministers of Industries & Commerce and Customs, and it has been agreed that if this recommendation is supported by the industry, then the Approving Authority should be the Comptroller of Customs. This amendment to the report is logical, as the Comptroller of Customs already approves of honeys for export other than by the Authority.

I do not seek to influence you in the conduct of Conference business, but I would say that where it is necessary for the Government to amend the present regulations to put a recommendation into effect, I must have clear evidence of substantial industry support for the change before I ask the Government to consider amending the regulations. Too often in the past, resolutions of Conference have proved not to reflect the wishes of the majority of the industry. I would like to see any representations backed by a resolution decided on a substantial majority of official delegates' votes. I understand that the honey export trade this season has been more buoyant than ever before. The chairman of the authority will no doubt expound more fully on this and on the prospects for future export marketing. Irrespective of whether this continues, however, it is most important for the industry to be so organised that the full exportable surplus is exported at the best possible prices, and to the advantage of the honey producing industry generally.

EXPANSION OF PRODUCTION:

It was very clear to the Committee that although there is scope for increasing production by extending hives into some areas, these areas are mostly in difficult country, and producers would need to consider very carefully the economics of expansion into new districts. My Department would be happy to co-operate with the industry in a study of these marginal production areas, to assess the number of hives that could be carried economically. Any limitation of hives in an area would have to be by voluntary arrngement, but I suggest that if the industry is to expand successfully it must be on some organised plan of development.

THE DARK HONEY PROBLEM:

In the early days of the Authority there was a good deal of talk about the "dark honey problem". I know that this was a matter of particular concern to producers in this area. The development of the light amber blended honey served a two-fold purpose. It provided the consumer with an acceptable alternative to the white clover honey, and it assisted in the disposal of quantities of dark honey that would otherwise have realised low prices on either the local or export markets. More recently there has been a development of the sale of honey by categories which indicate the principal floral source of the honey. Producers of the darker honey have also established a small but profitable export trade in comb section honey. The extension of hives into the more difficult honey producing areas will increase the production (mainly of darker honey) and because of the developments that I have mentioned I believe that this honey should be able to be disposed of more profitably than in earlier years.

This procedure used for opening your Conference has been made possible by the co-operation and enthusiasm of the P. & T. Department, for which, on your behalf, I express grateful thanks. I would have liked to answer your questions, but this has proved to be impossible. It now gives me very much pleasure to declare your Conference formally open, in absentia. May your discussion be frank, and may your deliberation be wise and be to the ultimate benefit of the N.Z. honey industry.

CONFERENCE BUSINESS

Before Conference could proceed to voting on business on the Order Paper, the General Secretary pointed out, through the Chair, that observance of Rule 27 had again not been complied with by Branch secretaries. To regularise the position as an expedient and to give delegates the right to vote if so called upon, it was agreed by Conference that Rule 27 be suspended for the duration of Conference.

REMITS

REMIT NUMBERS CORRESPOND TO THOSE APPEARING ON THE ORDER PAPER, AND IN SOME INSTANCES WERE AMENDED BY CONSENT OF PROPOSER AND SECONDER AND UNANIMOUS APPROVAL FROM THE FLOOR. REMITS NOT DETAILED WERE WITHDRAWN OR LAPSED. SPEAKERS WERE RESTRICTED IN SPEAKING TIME, SUCH AN EXTENSION IN EACH CASE AT THE WILL OF CONFERENCE. BECAUSE OF THE TIME FACTOR AND THE ONLY AIRCRAFT SCHEDULED TO DEPART IN EARLY AFTERNOON, REMIT 28, 29, 30 AND 31 COULD NOT BE CONSIDERED.

CAUCUS COMMITTEE REPORT

(1) HAWKE'S BAY: "That Conference accept the recommendations contained in the Caucus Committee report 'en bloc' and pursue their implementation with minimum delay." (Berry Snr/Ward)
Delegate's Vote: 715 for — 4218 against. LOST

(3) CANTERBURY: "That this conference reject the Caucus Committee's recommendations with regard to the export of Honey by private individuals and recommends that the New Zealand Honey Marketing Authority retains the sole rights of control of export as at present." (Penrose/Dickinson).
Delegate's Vote 3744 for — 1184 against. CARRIED.

(6) WAIKATO: "That honey dew be included in the Honey Export Regulations." (Carey/Tuck. Amended Bartrum/Cloake). CARRIED.

(7) AUCKLAND: "That the Caucus Committee be formally thanked for their efforts in bringing their report forward and that Conference deliberates on the whole of Section 118 of the Report." (Stukey/Roberts. Amended Bray/Penrose, Berry Snr./Berry Jnr.). CARRIED.

HONEY MARKETING AUTHORITY

(14) SOUTH CANTERBURY: "That expenditure and income of the three H.M.A. plants for each year be published." (Bartrum/Cloake). LOST.

(15) BAY OF PLENTY: "That this Conference requests that in view of the low payout for the darker grades the H.M.A. and all Dark Honey Producers stress the higher nutritional value of the dark honeys." (Ward/Whalley). CARRIED.

(16) AUCKLAND: "That the H.M.A. endeavours to give an earlier indication of its expected final payout." (Stuckey/Whalley). LOST.

DEPARTMENTAL

(17) SOUTHLAND: "That Conference express extreme concern at the low penalties provided for illegal importation or possession of bees and ask the Department to provide for a truly deterrent penalty." (R. Cloake/Glynn). CARRIED.

IMPORTATION OF HONEY

(18) SOUTHLAND: "That the executive and the H.M.A. continue to do all in their power to prevent the importation of honey into New Zealand."
(Cloake/Ward). CARRIED.

VENUE OF CONFERENCES

(20) SOUTH CANTERBURY: "That Conference Venue be restricted to centres in major beekeeping areas." (Cloake/Bartrum). LOST.

(21) NELSON: "That Nelson be offered as venue for the 1973 Conference." (Ray/Carey). CARRIED.

PRICE CONTROL

(22) **SOUTHLAND: "That the beekeeping industry revert to price control (Schedule A) instead of (Schedule B) as at present. Since price control has been lifted the industry has been chaotic as far as marketing has been concerned."** (Dickenson/Carey). CARRIED.

WASPS

(23) **OTAGO: "That the Executive approach the Municipal and Counties Association to obtain their assistance in having the Minister of Agriculture take responsibility for the destruction of wasps."** (Dickinson/Jansen). CARRIED.

BEESWAX

(24) **WAIKATO: "That we examine the marketing and presentation of beeswax with a view to securing a better return."** (Carey/Tuck). CARRIED.

FREIGHT CHARGES

(25) **WAIKATO: "That we protest to the Minister of Transport at the rising cost of freight and have a special rate set for honey."** (Tuck/Whalley). LOST.

ENVIRONMENT

(26) **WEST COAST: "That the Executive approach the Minister of Environment and the Minister of Forests asking investigation of the accelerated dying of Rata and other native trees and shrubs on hill country.**
(Glasson/Bray). CARRIED.

(33) **EXECUTIVE: "That subscriptions go up in stages of $2 per 100 hives from 200 upwards with a $60 maximum for 3000 hives."**
(Penrose/Carey). CARRIED.

(34) **THE PRESIDENT, Mr B. W. Forsyth:**
"That the Rules of the Association be amended as follows:—

A.1. By substituting the words "Rule 18" for the words "Rule 22" in the definition of "the General Executive."

2. By replacing Rule 3(1) with the following:
"To acquire, obtain, enter into or make any arrangement for any authority right, privilege, concession, contract or charter with any governmental or local authority or any corporation or person, which may in the opinion of the Association be in its interests or conducive to the attainment of its objects."

3. By adding to Rule 3 the following new paragraph:
"Subject to the restrictions imposed by these Rules to borrow or raise or secure or guarantee the payment of money for the purposes of the Association in such amounts and on such terms as the Association may think fit in particular by the issue or granting of mortgages, charges and any other securities over any of the assets of the Association."

4. By deleting from Rule 4 the words "or to a Branch".

5. By substituting for the words "Annual Conference" in Rule 9(a) the words "Annual General Meeting".

6. By replacing Rule 9(b) with the following:
"The annual subscriptions so determined shall be payable as from the commencement of the financial year following the Annual General Meeting at which they are determined and shall be payable each financial year thereafter until new subscriptions are determined (and become payable each financial year thereafter until new subscriptions are determined) and become payable in accordance with this Rule. Annual subscriptions shall fall due on the 1st day of June in each year."

7. By deleting Rule 9(d).

8. By deleting from Rule 12 the words "not later than the 30th day of April in any year".

9. By adding to Rule 14 after the words "shall be elected at the Annual Meeting of the Branch" the words "and shall hold office".

10. By replacing paragraph (a) of Rule 14 with the following:
    (a) The General Secretary shall at quarterly intervals from the commencement of the financial year with a first payment on the day of 197 send to the Secretary of each District Branch 30% of the annual subscriptions received during the preceding quarter from the members who are members or have been assigned to membership of that Branch.

11. By adding to Rule 14 the following new paragraph:
    (d) (i) Voting at all meetings of District Branches shall be in the first instance on the voices, or, if there is a call for it, on a show of hands. In either case each member present shall have one vote.
    (ii) Should a poll be demanded it shall be taken at such time and place as the Chairman of the meeting shall direct and the result of the poll shall be deemed to be the resolution of the meeting. The demand of a poll shall not prevent the continuance of a meeting for the transaction of any business other than the question on which the poll has been demanded.
    (iii) On a poll each member present in person or by proxy, shall have one vote for each full dollar of annual subscription actually paid by him in the preceding financial year; provided that a member who owns or operates on his own account not more than 20 colonies of bees shall have only one vote.

12. By replacing Rule 16 with the following:
    "In the event of a District Branch being wound up or for any other reason ceasing to exist all its funds and other property shall belong to and be immediately transferred to the Association."

13. By replacing Rule 17 with the following:
    "Every member of the Association who is not a member of a Branch and every member of a Branch which is wound up or ceases to exist and every new member of the Association shall be assigned by the General Secretary to membership of the Branch which in the opinion of the General Secretary is the nearest or most convenient to the address of the member. The General Secretary may on the application of a member change the Branch to which he is assigned. Upon assigning a member to a Branch the General Secretary shall inform the member and the Secertary of the Branch or Branches concerned. Members who are members of Branches at the date this Rule comes into force shall remain members of those Branches."

14. By replacing Rule 18(c) with the following:
    "Nominations for the members of the General Executive may be made in writing delivered to the General Secretary prior to the Annual General Meeting, or may be made from the floor at the Meeting. No member of the Association shall be entitled to make more than one nomination."

15. By deleting from Rule 22(1) the words "except as provided by Clause 14(a) hereof".

16. By replacing the words "Rule 9" with the words "Rule 8" in Rule 25(b).

17. By replacing the words "General Executive, each District Member" in Rule 25(b) with the words "Association".

18. By replacing the word "Conference" in Rule 25(f) with the words "a General Meeting".

19. By deleting from Rule 25(f) the words "of those present at Conference and entitled to vote".

20. By deleting from Rule 29 the words "the members present at".

21. By replacing the words "of the General Executive, each Direct Member" in Rule 29 with the words "of the Association".

(Forsyth/Cloake). CARRIED

OR

24. By replacing Rule 25(e) with the following:
"(e) A quorum shall consist of delegates of one half of the District Branches".

25. By replacing Rule 27 with the following new Rule:
"27. All members of the Association shall be entitled to attend and speak at General Meetings of the Association, but only the duly appointed delegates of District Branches shall be entitled to vote."
(Carey/R. Cloake). CARRIED

26. By replacing Rule 28 paragraphs (a), (b), (d) and (e) with the following:
"28. (a) Each District Branch shall be entitled to elect one member of the Association (who need not be a member of that Branch) as its delegate at each General Meeting of the Association.
(b) The Secretary of each District Branch shall prior to the commencement of each General Meeting inform the Secretary of the Association in writing of the name of the delegate for that meeting so elected by his Branch and if this information is not so given no votes may be exercised on behalf of the Branch.
(d) Every question submitted to a General Meeting shall be decided in the first instance on the voices or, if there is a call for it, on a show of hands. In either such case each delegate shall have one vote.
(e) Should a poll be demanded it shall be taken at such time and place as the Chairman of the meeting shall direct and the result of the poll shall be deemed to be the resolution of the meeting. The demand of a poll shall not prevent the continuance of a meeting for the transaction of any business other than the question on which the poll has been demanded.
(ee) On a poll, each delegate shall have one vote for each full dollar of annual subscription actually paid by the members of his Branch in the preceding financial year."
"That this Rule be altered to ensure that both majority and minority votes of those present at Branch Meetings be recorded in the Delegates Votes at Conference." (Berry/Belin). CARRIED.

ELECTION OF OFFICERS
Messrs Smaellie and Palmer-Jones of the Department of Agriculture were called upon to act as scrutineers of the secret ballot for officers of the Association and members of the executive.

NATIONAL PRESIDENT Mr Bruce Forsyth of Ohaupo announced that he would not stand again for the Presidency, and Mr Ivan Dickinson of Milton the sitting Vice President was duly elected.

VICE PRESIDENT: Mr David Penrose of Southbridge, Christchurch.

MEMBERS OF EXECUTIVE: Following a number of nominations for the North and South Islands, the following were declared elected:

NORTH ISLAND: Messrs M. Haines, Kaitaia and E. Whalley, Wanganui.

SOUTH ISLAND: Messrs J. Bray, Leeston and M. Cloake, Timaru. It will be noted that both Islands elected a new member to executive.

CONFERENCE CONSIDERATION OF CAUCUS REPORT. RECOMMENDATIONS AND AMENDMENTS.

FOLLOWING DETAILED DISCUSSION ON EACH SUB-CLAUSE OF CLAUSE 118. ITEMS NOT DETAILED HEREIN WERE REJECTED.
(a) That—
(i) Those who are engaged in the production and marketing of honey in the comb should be allowed to continue to develop this part of the industry as at present without export restriction or contribution towards a levy fund of any description; (Gavin/Belin). CARRIED.

(ii) In areas where marketable honeydew may be collected in sufficient volume producers should be encouraged to develop the export market in this commodity (paragraph 66). (Penrose/Cloake). CARRIED.

(b) That the Department of Agriculture should assist to draw a distinction between the composition of honeydew and honey to ensure that safeguards are taken to prevent the contamination of honey with honeydew (paragraph 67). (Penrose/Cloake). CARRIED.

(c) That producers who pack and sell honey direct to consumers or to local retailers should be allowed to continue and to develop their business, without restriction (paragraph 79), but we view with concern the contents of paragraph 70. (Morris/Whalley). CARRIED.

(d) That the New Zealand Honey Marketing Authority should continue to engage in export and local marketing of extracted honey, to the best advantage of the industry. (Higgins/Whalley). CARRIED.

(g) That—

(i) The present seals levy be retained and extended to cover all other extracted honey and paid at the point of sale by declaration.
(Dickenson/Roberts). Delegates vote: For 3869 — Against 1101. CARRIED.

(i) That the purposes for which the levy funds may be used be clearly defined by regulations (paragraph 104) and that the purposes be as proposed in the May 1971 "Beekeeper". For 37 — Against 16). (Bray/Morris). CARRIED.

(j) That the authority undertake a review of its marketing operations with a view to improving the overall return to suppliers (paragraph 108). (Ward/Hansen). CARRIED.

(m) In view of the fact that Conference has decided to retain present seals levy system, that this Conference confirms the present system of calculation for voting for the Authority and eligibility for election of the Authority. (Poole/Roberts). CARRIED.

"That the Government be requested to amend the appropriate Regulations in order to implement (g) (i) as amended and (i) as amended by the Conference." (Cloake/Pool). Delegates vote: For 3868 — Against 1022. CARRIED.

THE PRESIDENT'S ADDRESS

It is my privilege to report to you on the activities of your Association during the past twelve months. The year just concluded has again been a busy one. Three very full meetings have been held, and it is during these brief times that every endeavour is made to deal with an ever increasing volume of business. It has been of great concern to myself as President, that because Executive only meets twice a year between Conferences, and with members domiciled from one end of the country to the other, it is becoming practically impossible to have all members constantly participating in Association affairs with the limited finance available. Frequently, our General Secretary and myself have had to deal with matters because of urgency and the high cost of communication. We have endeavoured to keep the industry well informed by the circulation of detailed minutes which are most efficiently compiled by our General Secretary.

Executive members have attended as many Branch meetings and Field Days as has been practicable, but here again the cost involved has restricted these activities. I suspect that many beekeepers are not greatly concerned with the problems and difficulties which face their Association, but I would emphasise that the immediate future will require a large scale revival of interest and support, if the heart of your industry is to survive.

MEMBERSHIP AND FINANCE:

Because statistical figures on hive holdings and beekeepers are unavailable, I cannot comment here, other than that the number of beekeepers assessed at 3228 last year, would most certainly have fallen. I can regretfully inform you that the number of financial members belonging to the National Beekeepers Association has fallen by 138 to 617 members. It could safely be assumed therefore, that the financial membership would barely represent 20% of all beekeepers. This situation, together with increasing costs in every direction, has resulted in a net deficit of $1658 for the year's operations. Your Executive has been conscious of this situation throughout the year, and operated accordingly, but just what the remedy for the salvation of N.B.A. is, must be resolved at this Conference.

ASSOCIATION RULES:

Executive has taken bold action here, and will place before you numerous amendments, which are designed to revitalise the Association. Some of these are merely improvements as far as phrasing and practical application are concerned, but major changes for consideration include raising the subscription scale to a new maximum, and the increasing of voting strength to the beekeepers with the larger hive holdings. There are options of voting procedure at Branch and Conference level, and delegate voting at Conferences.

The abolition of District Membership and payment of all subscriptions to the General Secretary, with a 30% remittance back to Branches are other amendments for your consideration. In general, all proposed amendments are considered to be of distinct advantage to the welfare and efficiency of the Association.

1971/72 HONEY CROPS:

The season just concluded has been one of varying crops. Some areas have produced excellent results, while others have been well below average. However, the overall tonnage has been assessed at 5600 tons. This compares favourably with last year, and would be regarded as above the average for the last six years.

HONEY MARKET:

The local market has remained very unstable, with prices ranging from 18c to 44c per lb. Extensive price cutting, "specialling" and retailing of bulk honey off the tap continues to depress prices. The level between the re-

commended H.M.A. retail prices, and the mediocre payout received by darker honey producers, brought about by the present system of category grading, has resulted in an oversupply on the local market. The many producer packers competing against the established packing businesses, has brought about a chaotic state of affairs. This is depressing incomes for all, and does nothing to enhance the public image of the honey producer.

Surely, those selling honey at 18c lb. must realise that if their cost of production is 10c lb., then a mere 2c increase would lift their net profit by 25%. I have stated time and again that, if only beekeepers would work out their costs and establish a budget, they would soon realise that many of their selling prices are uneconomical. It appears to me that the acute position some producers and packers of honey find themselves in today is not fully realised by by them, and I feel obliged to inform them that they will undoubtedly discover almost too late for some, that they cannot withstand another year of inflation at the rate of the last two years.

We simply cannot continue in a situation where it is a fact that costs are increasing at a far greater rate than the financial return. The small price rises for honey over the past two years has been far outstripped by production costs; many of these have increased by as much as 40%. I urge more of the honey producers to spend more time concentrating on production and leave the marketing side to your central organization and specialised packers. This would surely please the Agricultural Production Council, who, twelve months ago were advised that the potential for the industry was an increase of 59,000 hives of bees, estimated to produce 1840 tons of honey.

If the Honey Marketing Authority was to intensify the exporting of bulk honey, and perhaps packed lines also, with less activity on the local market, then this should assist to rectify the situation. A study of graphs on page fourteen of the 1971 H.M.A. report indicates that exports have climbed rapidly since 1968 to 1996 tons. On the other hand, local sales have steadily fallen to 833 tons. This is a trend which is desirable. However, all this could not be achieved without more supplies of bulk honey being available for export.

New Zealand honey enjoys a world wide reputation and is always sought after. Overseas markets are abundant; Japan for instance imports 12,000 tons annually and is expected to increase consumption by 10% annually over the next five years. It is also a country of decreasing home production due to expanding industrial development, and has always been keenly interested in natural foods.

I must repeat again this year that until we all resolve to support our Export Authority, which returns all its profits to suppliers, and is financed largely by 1% Government advances, we will continue to suffer the misfortunes of our own creation.

The so-called independence of beekeepers is fast fading away, and more and more of the bigger retailers and supermarkets now dominate the market. Our only answer to this, is in a sense, co-operative marketing. Instead of squabbling over who is going to get the biggest piece of cake, we should get down to producing a bigger cake for all to share. In brief, specialised packers, supplying the local market, your Marketing Authority exporting and more beekeepers getting on with the job of production.

Perhaps it would be timely to suggest that many of our problems could be overcome if we adopted as our management policy, one similarly used by our bees. We spend our lives dealing with such methodical insects as bees and yet cannot seem to evolve a marketing system which gives the maximum return for all sections. The bee colony is ruled by a master mind, the Queen Bee. Efficiency is the keynote and every member co-operates to produce a surplus. They are highly organised,every bee has a job to do, and gets on with it under the direction of the Sovereign Ruler.

CAUCUS INVESTIGATING COMMITTEE:

It was announced at Conference last year that it was Government's intention to carry out an investigation into all aspects of Honey Marketing and the industry in general, and that a committee of five under the Chairman-

ship of Mr A. Dick M.P., Under Secretary to the Minister of Agriculture, had been appointed for this purpose. This has been duly carried out, and the industry is grateful to Government for the work and research that has been done by this Committee. It is hoped that out of this report, which is to be considered at this Conference, will emerge an acceptable policy which can be utilised for the benefit of all sections.

HONEY PACKERS' ASSOCIATION:

This organisation, formed in 1967, has also had its problems. I really think that, acting independently as they do, their likelihood of prosperity is about as slim as that of the N.B.A. Our industry is too small to be fragmented into two administrative bodies and I would appeal to the Packers' Association to consider amalgamating with the National body. Some packers and beekeepers have resigned, others signify their intentions to do so. This simply weakens all sections, and it would be more beneficial for everyone to rejoin the N.B.A. and strive to overcome the existing crisis.

CADETSHIP SCHEME:

Mr Ivan Dickinson, cadetship coordinator, has done a tremendous amount of work and the development of this scheme is largely due to his efforts. I understand that four applicants have expressed their desire to participate, so the success of the scheme is now largely in the hands of the senior beekeepers. Some revision of the syllabus of the Diploma of Apiculture is also being attended to. On behalf of beekeepers I must extend thanks to you, Ivan.

LIBRARY:

Mr Chris Dawson, Librarian, advises that the Library continues to flourish. All credit must go to him for a valuable source of information available to all. He will be making a report to Conference.

AGRICULTURAL CHEMICALS BOARD

Mr Tom Pearson continues to represent our Industry on this Board He will also be reporting to Confer ence, but I must remind you of th valued contributions he makes on you behalf. He has now completed fou teen years as our representative an we are indeed most appreciative of his efforts for our benefit.

JOURNAL:

Our Editor, Mr L. W. Goss, has again presented four publications of the highest standard. The 'N.Z. Beekeeper', always contains interesting information on industry activities and it is a tribute to Mr Goss that one often observes reference to the quality of our journal overseas.

LIAISON:

Throughout the year we have been closely associated with the Department of Agriculture, represented by newly appointed Deputy Director of the Horticultural Advisory Services Division Mr J. Watt, and beekeeping Superintendant Mr E. Smaellie. Through this Department the industry receives the benefit of work carried out by Apicultural Advisory Officers, Apiary Instructors and Research Officers. We have not been able to liase closely with the New Zealand Honey Marketing Authority because all their members are domiciled in the South Island. However, their Manager, Mr R. McDonald and Chairman Mr Russell Poole have kept us informed on industry developments relating to marketing. Of course, we are grateful of the Statutory Grant to the N.B.A. now increased to $4000 p.a. and the 50% share of Journal costs.

THANKS:

On behalf of my Executive, I must extend a vote of thanks to our General Secretary, Mr Eric Neal, who has rendered loyal service throughout the year. His knowledge and experience, has been of great assistance to myself and Executive at our meetings. If Branches could consolidate their position and strengthen memberships, I know that Mr Neal would most certainly mould this organisation into a worthwhile body.

To my Vice President and Executive members, I also extend my thanks for their valued contributions and assistance. Finally, a Conference is a gathering of important people, who, singly can do nothing, but together can resolve that nothing should e done. Please do not allow this to appen as has done in the past.

I trust that we have a good Conence and that prosperity lies ahead or us all.

APICULTURE SECTION
WALLACEVILLE – 1972 REPORT

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 to Canada and Australia

The Apiculture Section continued to examine sample of bees from a range of hives in the apiaries of suppliers before queen cages were loaded with escort bees. One hundred and seven samples were examined to ensure that escorts could be provided from hives unaffected with *Nosema,* so complying with requirements for import permits.

The incidence of *Nosema* in samples submitted by queen breeders in the Autumn was much the same as for the previous season. However, one breeder, exporting queens in the Spring, had an unusually high incidence of *Nosema* and consequently submitted more samples than usual. This experience supports the recommendation of Palmer-Jones (N.Z. Beekeeper, August 1970) that preventive feeding of fumagillin should be made to hives selected to supply escorts. This treatment would be particularly worthwhile if escorts are required in the Spring, when *Nosema* is usually most prevalent.

Project WA/1 Agricultural Chemicals.

Procedures adopted by the Apiculture Section for assessing the effects of pesticides on honey bees are based on three methods of approach. The effects may be observed in the field by applying the pesticides on a large-scale, laboratory methods may be employed, or the action of the compounds may be studied by applying them to plots of flowering white clover enclosed with a nucleus hive in a cage.

When assessing the effect of pesticides on bees we have always found very good agreement between results obtained by our three methods. Consequently the large-scale method, because it is both costly and time-consuming, has now been mainly replaced by the others. However, as a cross-check, all three methods are occasionally applied to the same insecticides.

We had found the systemic insecticides dicrotophos and methomyl toxic to honey bees in laboratory and cage tests. Dicrotophos had also been shown toxic when applied in the field to raspberries. However, this crop differs markedly from white clover, our usual test crop. These insecticides were tested near Oamaru, both to complete cross-checking the three methods, and to investigate their effect on honey bees when applied in the field.

It was found that toxicity to honey bees persisted for about 7 days after the dicrotophos application to flowering white clover, and about 8 days after the methomyl one. Results of field, laboratory, and cage tests of the two compounds agreed very closely.

Project WA/2 Pollination.

Lucerne. The effect of excluding pollen sources other than lucerne from honey bees was studied by enclosing areas of a lucerne seed crop with cages containing hives, and comparing pollination in these with that of the surrounding crop. Greatly increased pollination was obtained from 'Wairau' lucerne grown under such conditions, and worked solely by typical commercial strains of bee.

The elimination of competing pollen sources is uneconomic. Hence the effect of moving successive waves of hives, with a maximum population of young bees, to lucerne crops to promote tripping, and so increase lucerne seed yields, was studied. This measure proved of no practical value under New Zealand conditions. Adequate pollination cannot be guaranteed with a hive concentration of less than one per acre.

Sunflowers.

Sunflowers are being grown in various parts of New Zealand on an increasing scale, mainly for their oil. The plants appear dependent on insect pollination for fertilization, but insufficient knowledge is available for us to make adequate recommendations. Therefore an experiment will be carried out in the Oamaru district to find their pollination requirements.

Project WA/3 Toxic Honey.

This permanent project continues. Sampling has been reduced in areas where records of toxicity tests are available for long periods, and concentrated in recently closed ones.

Project WA57/1 Honey Production Compared for Queens from Three Queen Breeders.

This project is now nearing the end of its first season but results are not yet available.

Project WA/80 Effect on Honey Bees of External Acarine Mites.

This project continues.

Project WA/81 Diagnosis of Paralysis and its Effect on Honey Bees.

This project continues.

Project WA/94 Requeening Honey Bee Colonies without Dequeening.

This project has been concluded. It has been shown that two storeyed colonies can be successfully requeened by raising the original queen from the brood nest, above a division board, rearing a young queen from an introduced cell in the bottom storey, and then reuniting both storeys when most advantageous. There is no need to find queens, and colony manipulation is reduced to a minimum.

It pays to brand 'em

Don't sell your honey blind! If you want people to buy **your honey** — not just any honey — you must mark it with your brand or name.

- **Branding pays, especially in CARDEA cartons because you can get bold striking designs which make your name stand out.**
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Examination of Bees from Tonga Reveals a New Ascid Mite.

In April 1971 the Apiculture Section was requested by the Horticulture Division to examine samples of bees from a survey of hives and swarms in Tonga. The survey was of limited scope, being carried out only on the main island, Tongatapu, the numerous small islands nearby being excluded. A special permit was issued to allow the bees, dead and preserved, to be brought into the country. Strict quarantine procedures were observed.

A hitherto unknown large mite was found on bees from three hives. This mite belongs to the family Ascidae, many of which are predaceous upon immature insects. Such mites attack sealed and unsealed brood in South-East Asia. The life history and effect on honey bees of the Tongan mites could be determined only by intensive study in Tonga itself.

The discovery of this mite shows the great risk attendant on importing honey bees into New Zealand from overseas. The importation issue is fully discussed by Palmer-Jones in the November 1971 issue of the New Zealand Beekeeper.

HONEY MARKETING AUTHORITY

CHAIRMAN'S ADDRESS TO CONFERENCE — KAITAIA — JULY 1972

With some of the major honey producing areas in New Zealand having a poor crop this year the amount of honey supplied to the Authority is less than previous years, and to the 30th June it stands at 1747 tons compared with 2210 tons last year, and 1848 tons the previous year.

Because lower throughput can affect the amount available for payout bee-keepers were urged through Newsletters and addresses at Field Days and direct approach, to supply as much honey as possible to the Authority. Due to good overseas prices our finances improved to the point that the advance payment for this season was announced as:—

10 cents per lb for honey grading 86 to 100 points
9 cents per lb for honey grading 76 to 85 points
8 cents per lb for honey grading 75 points and lower

In April a further incentive was offered to get supplies of honey by increasing these advances by 2 cents per lb, and I feel this was partly responsible for the satisfactory intake we achieved.

The final payout last season was:—

14½ cents per lb pro-rata for honey grading 95 - 100 points
13¼ cents per lb pro-rata for honey grading 86 - 94 points
13 cents per lb pro-rata for honey grading 85 points and lower

The Authority has been criticized for the low payout made on the lower grades of honey in comparison with the 95 to 100 point honey., but the pay-outs reflected the prices received by the Authority for these honeys. During the current season there has not been such a marked difference in selling prices between the lighter and darker honeys, and this is reflected in the advance payments. For example, last year honey grading 86 points received a total payout of 11.395 cents, this year the same grade is receiving an advance of 12 cents. Similarly 76 point honey 9.88 cents payout last year, this year's advance is 11 cents and 70 points last year made 9.1 cents, this year's advance is 10 cents.

Another improvement this year is that the advance payment was able to be paid in one amount rather than by installments as was necessary last year. These advances have been paid and our overdraft has remained well within the limits imposed by the Reserve Bank.

EXPORT SALES:

Due to a world shortage of honey, prices overseas showed a rise towards the end of last year and prices well in excess of local market returns have been received for a good proportion of this year's intake.

Recently, however, there has been a slackening of demand and a consequent fall in prices.

Last year's record sales of 1996 tons overseas reduced our stocks on hand to a very satisfactory level, and with the good prices being offered sales have been made as honey has been received, with the consequence that stocks have been kept low.

Overseas sales in retail packs have increased markedly with quite a large amount of the packing being done at Christchurch and Pleasant Point. As with last season's sales, sales this year have been mainly to Countries other than the United Kingdom and Europe, with Japan again being a major customer.

LOCAL SALES:

Because overseas prices were better than local returns, sales on the local market were restricted for a while, then our wholesale prices were increased by 5 cents per lb in order to bring local returns more in line with export returns. This move resulted in a marked drop in sales, but it would appear from the sharp rise in Seals Levy receipts that Packers are selling more honey.

CAUCUS COMMITTEE INVESTIGATION:

The Parliamentary Under-Secretary to the Minister of Agriculture announced that a Committee of Caucus would investigate the Honey Industry and the result of this investigation has been sent to all beekeepers, and I have already made some observations on this Report in the May issue of the New Zealand Beekeeper.

There would be many very adverse results if the Committee's recommendations are implemented, and those worst affected would be the H.M.A., N.B.A. and many beekeepers who, for various reasons, would not be able to dispose of their honey in the most advantageous manner.

Quite frankly, it amazes me that the Committee, which consisted entirely of farmers, suggested fragmentation of export sales effort to the beekeeping industry at the same time as the same parliamentarians as farmers supported a proposal for the wool growing industry of compulsory acquisition and a Sole Selling Corporation.

Because of the apparent dangers to the industry if the Caucus Committee Report is adopted without alteration, some Authority Members drew up a scheme which would retain producer control of the industry and give a great deal of protection against price fluctuations.

This scheme which has been circulated to you here, contains aspects of proposals which have been advanced by various people from time to time.

I have already mentioned the wool industry, and I think that a similar scheme of total acquisition and marketing by a single organisation would be the best way to handle our honey.

If however, this idea is unacceptable to the majority of beekeepers, but some change from the present system is desired, the proposals as circulated to you is, I think, a workable alternative.

STAFF:

Mr R. MacDonald who has been General Manager for the last two years has resigned and I am pleased to announce that Mr C. Carr has been appointed to the position. Mr Carr has been the Accountant for 3 years and is thoroughly familiar with all aspects of the Authority's affairs. He is already well known to, and held in high regard by many North Island beekeepers.

I would like to thank the above named staff and all other members for their loyalty and co-operation during the past year.

AUTHORITY ELECTION:

As you are no doubt aware, there is an election for two Authority members this year. Mr Harry Cloake and myself retire by rotation and I hope that as a result of the election there will again be a North Island beekeeper on the Authority.

I would like to mention that Mr Cloake, after many years service to the industry in various positions on the N.B.A. including National President ,and six years on the H.M.A. has decided not to seek re-election.

On behalf of the Authority I would like to place on record our appreciation of the work he has put in over the years for the benefit of beekeepers and beekeeping.

I also wish to record my sincerest thanks to my fellow Authority Members for their help to me and their efforts on your behalf over the past year.

APIARY SECTION REPORT TO CONFERENCE

INSPECTION OF APIARIES:

Check inspection of apiaries for disease by Apiary Instructors was continued with assistance from competent beekeepers acting as temporary inspectors. Reports indicate that the overall incidence of **bacillus larvae** disease is low but is relatively widespread.

The overall incidence of diseased apiaries and hives found by Apiary Instructors and notified by beekeepers in the 1971-72 season was 3.61 per cent and 0.53 per cent respectively. The total number of diseased hives burnt was 635.

The over-all position as seen by statistics since 1965, when the current procedures for dealing with bee diseases were introduced under new provisions in the Apiaries Act, the annual percentage of apiaries and hives with disease has averaged 2.89 per cent and 0.42 per cent respectively.

The increasing number of apiaries in which disease is being found indicates that some beekeepers may have become too complacent, and with a feeling of security have failed to take proper measures to control the spread of the disease.

Th current policy of employment of competent beekeepers as temporary inspectors to assist Apiary Instructors with check inspections of apiaries will be continued.

There is still the continuing difficulty of ensuring that beekeepers are available to do a certain amount of part-time inspection work with the department. Again I would urge all branches of the National Beekeepers' Association to continue to co-operate with the local instructor and ensure that sufficient competent beekeepers are available for the work each season.

PRODUCTION:

Last season's production was approximately 5600 tons of honey and 196,000 lbs of beeswax, which is approximately 220 tons more honey than the average for the previous six seasons.

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

The total of both extracted honey submitted for export grading as at August 1971 totalled 1498 tons. Of this honey, 134 tons were rejected as unsuitable for export.

The total of comb honey graded for export amountetd to 126 tons, and 9 tons of extracted honey in retail packs shipped by producer-packers were graded.

Overall condition and quality of honey submitted for grading is now better than it has ever been. The usual quota of low specific gravity and fermenting honeys was submitted, however, and this fault remains a serious problem.

Honeys which failed to meet the requirements of the Honey Export Regulations were rejected for export for the following reasons:—

Fermentation and low specific gravity	97½ tons
Containers rusty or damaged or previously used for containing paint or substance other than honey	3½ tons
Condition faults, unstrained or burnt honey	1 ton
Colour too dark	27 tons
Tainted with honey dew	5 tons
	134 tons

That there is scope for improvements by some beekeepers in the extracting and processing methods used, also in the storage of honey is evidenced by these rejections.

In view of the increasing importance that all honey is presented at the point of sale in the best possible condition, Apiary Instructors have been asked to intensify this aspect of their advisory work programmes for beekeepers in order that gradings and receipts for honey may be improved.

ADVISORY WORK:

An important aim of advisory work is to influence the realisation of the potential honey production for the district by encouraging an increase in hive numbers and greater production per hive by improved management techniques.

A trend towards an increase in enterprise size is evident amongst the commercial beekeepers. Single-man units, with seasonal help, are operating up to 1100 hives, and larger units are operating correspondingly increased hive numbers. With this development, however there has been a tendency for some beekeepers to take on more hives and apiaries than they can manage efficiently with available staff and resources. Expansion on this basis is not in the best interests of the beekeepers concerned or of the industry as a whole.

BEECH HONEYDEW:

Investigations into the possible production and export of Beech honeydew have resulted in markets being established in Europe and the East.

Honeydew in section combs and bulk extracted honeydew has been exported as trial shipments. All shipments have been examined to ensure that the condition and quality factors meet the same high standards as are required for export honey.

It would appear that there is a good potential market for this product at favourable prices to the beekeeper.

RESTRICTED AREA:

A total of 52 permits were issued to beekeepers to establish hives in the restricted area for hive build-up purposes and for production of honey. Difficult spring conditions prevent hives storing a surplus of honey. The area proved beneficial, however, as hives built up in strength and did not require supplementary feeding as was found necessary in many places outside the area.

Six test apiaries with two hives in each are maintained within the Restricted area. Composite samples were taken from each of these apiaries in November 1971 and March 1972 and forwarded to the Wallaceville Animal Research Centre for toxicity testing.

Field observations this year indicated that the overall incidence of Passion Vine Hoppers and evidence of honeydew was lower than in most previous years.

FIELD INVESTIGATIONS — MANAGEMENT OF HONEYBEE COLONIES:

The 1971/72 season brought to a conclusion a three year testing programme of the two-queen system of colony management. Under commercial beekeeping conditions in southern Hawkes Bay, the two-queen system yielded 60-70% more extractable honey than the standard single-queen method. Although each colony required more equipment and working time, overall the two-queen system required less equipment, truck mileage, apiary working time per unit quantity of honey produced (i.e. per pound or per ton).

FEEDING COBALT SULPHATE:

An experiment to ascertain the value of feeding cobalt sulphate solution to bees was carried out following a claim by Russian scientists that over a three year period, honey production was greatly increased due to the rapid build-up in colony strength.

No significant build-up in brood rearing resulted after regular feeding of the cobalt sulphate solution, and honey production did not increase greatly.

With the extra time and expense involved for the beekeeper there appears to be little benefit to be derived from feeding cobalt sulphate solution in sugar syrup to colonies during the spring and early summer period.

WAIKATO INVESTIGATION:

An investigation was made into the cause of poor colony performance and queen bee losses reported by Waikato beekeepers.

Below average seasonal conditions prevailed during the spring and early summer period. This affected opportunities to forage and make cleansing flights. Presumably also affected were spring mating flights, resulting in insufficiently inseminated queens. Nosema apis spores were found present in samples from 12 apiaries representing six commercial beekeepers. However, only two apiaries were found sufficiently infected with Nosema for the poor performance of their hives to be clearly attributable to this disease.

The failure of many spring-raised queens in the month following introduction might be attributed to the high level of Nosema spores in baby-nuclei equipment and to insufficient drone mating of queens.

Beekeepers' Technical Library

Donations received:

INSECT POLLINATION OF CROPS by *J. B. Free* — 556 pages — 1970. Funds for the purchase of this expensive book were donated by Mr Tom Holland of Karoro, Greymouth and Arataki Honey Ltd. of Havelock North.

Sundry reprints of articles received from Wallaceville Animal Research Station.

These gifts are appreciated by the Library.

Catalogue of books available free on request from Branch Secretary or your Library.

Borrow books or bundles of assorted magazines by sending 20 cents to Chris Dawson, Hon. Librarian, P.O. Box 423, Timaru.

BOOK REVIEW

A welcome addition to the Beekeepers Technical Library is a comprehensive study titled *INSECT POLLINATION OF CROPS* by John Free of the Rothamsted Experimental Station, Harpenden, Herts, England.

Published by Academic Press in 1970, the book provides a great deal of information on the use of honey bees as pollinators and as such is of interest to beekeepers. At the same time, the text is academic with plant names in both Latin and common place description.

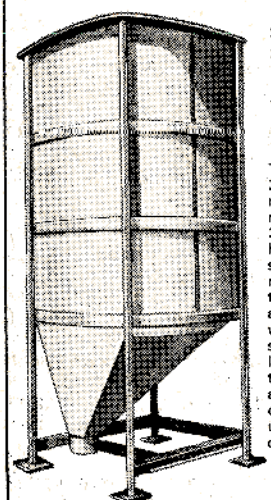
The work is profusely illustrated and cross referenced and beebeekeepers wishing to study the subject of pollination as a science would find the contents invaluable.

Chapter Two on *Foraging Behaviour of Bees* is of general interest and details well known facts, but it would be fair to comment that the average apiarist would find the text heavy going unless a detailed study was required.

The student intending to gain knowledge for the Diploma of Agriculture would be well advised to reserve borrowing time from the Librarian at Box 423, Timaru.

George and Ashton fibreglass storage and supply tanks

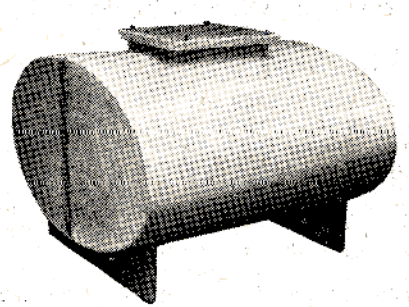
strong, light, easily cleaned, jointless, hygenic



SILO STORAGE TANK

for bulk supply honey

This tank can hold 3 tons of honey, measures approximately 8' deep x 3' x 3', and can have a built in sight gauge or be made completely **translucent.** It can also be supplied with or without a stand in a high or low position, so that if necessary a 44 gallon drum can be placed underneath the outlet.



SUPPLY TANK

This of 200 gallons capacity and is suitable for the water/sugar mixture used for bee feeding. It is also ideal for crop spraying etc. This tank can also have a built in sight gauge or be completely **translucent.** It has a detachable hatch and can be supplied with or without a stand.

Fibreglass containers are stain and acid resistant and can be used for all types of chemical or food storage. Cast-in colours make for easy visual identification and promote safety. Fibreglass containers can also be adapted to any installation or designed as both storage tanks and dispensers. These containers are available in standard shapes and sizes, but can also be custom made to suit your particular requirements. These fibreglass units meet with Dept. of Agriculture approval.

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MARKING BEES & QUEENS

by M. V. SMITH, University of Guelph, Canada

INTRODUCTION

Francois Huber, that remarkable Swiss beekeeper-naturalist, recorded in a letter to his friend Charles Bonnet in August 1791 the introduction of a queen "whose corslet we had painted to distinguish her from the reigning queen". Over the years, apiculturists have resorted to a wide variety of methods of marking honey bees — queens, drones, and workers — to facilitate identification of the bees, both within and without the hive, and as an aid in studying their behaviour.

Individual bees may be given distinctive markings for positive identification, or group or mass marking may be employed to identify large sections of a honey bee population. This article reviews some of the methods which have been used, including the most recent ones.

INDIVIDUAL IDENTIFICATION

Perhaps the simplest and most widely employed method of marking is a single spot of some quick-drying paint, used to identify the queen heading a colony and as an aid in locating her among the mass of worker bees in the hive. The readers of **Bee World** will know that the colour of the cover each year is not just a matter of artistic choice; it corresponds with the international colour-coding system for marking queens. This year the colour is yellow, 1973 will be red, 1974 green, 1975 blue, and 1976 white (represented by grey), after which the colour cycle is repeated. Those who follow this system can easily keep track of the age of their own queens, and of those imported from queen breeders in other countries.

Any paint that dries quickly and adheres well can be used for marking bees. Von Frisch recommends artist's pigment mixed with a solution of shellac in alcohol. This can be applied with a fine brush, and one brushful will serve to mark several bees. McDonald and Levin used a quick-drying butyrate paint, such as is sold for model aeroplanes. In the U.S.S.R. Garifullina uses oil paint dissolved in acetone. At the University of Guelph we favour "Duco," a quick-drying automobile lacquer, that can be thinned with acetone. It can be purchased in a variety of colours, although we usually bu ywhite lacquer and add pigments or stains to give the colours we require. Because it dries so quickly, this paint is best applied with an applicator rod instead of a brush. The applicator must be replenished with fresh paint for each bee marked.

The consistency of the paint is very important. It should be thin enough to flow into the hairs on the bee's thorax and adhere to the cuticle, but not so thin that it runs to the base of the wings, or into the neck region. With a little practice you can soon determine the amount of solvent required. Properly applied, this paint will remain on a queen for her lifetime.

Some writers have recommended nail polish for marking bees. We do not find this as satisfactory as the paints. It is not as durable, and the solvent is somewhat objectionable to the bees.

When a number of bees must be individually identifiable, combinations of colour paint spots can be used. The colours chosen must provide sufficient contrast, so that they can be readily distinguished. We find the head of an "insect pin" ideal for applying small secondary paint spots. Von Frisch described a system using five different colours, whereby up to 599 bees can be marked for individual recognition with various combinations of colour spots on the thorax and abdomen.

Ribbands used a series of symbols which he painted on the tergum of the second visible abdominal segment. These were so chosen that no damaged symbol would become confused with a single but complete one.

Radioactive paint was used by G. A. R. Tomes in 1940 for marking queens, a Geiger counter being used to locate her in the hive. This method does not seem to have been much followed up, although Raudszuz has described the use of a similar method. The use of radioactive tracers in biology has been widely developed and applied, but the tracers are normally applied internally by feeding; see the section "Mass marking."

A refinement of the paint marking method is to use small numbered discs which can be glued to the thorax or abdomen of the bee. Labels for this purpose (2-3 mm in diameter) are available from C. H. R. Graze K.G., 5057 Endersbach, Wurttemburg, Germany, or they can be made up by individual researchers. Some years ago I watched the assistants in Dr N. E. Gary's laboratory at Davis, California, making up large numbers of labels for marking drones. Discs punched from fine white art paper were fastened to double-sided adhesive tape along the margins of microscope slides. With the aid of a binocular dissecting microscope, identification codes were marked on the labels, using a very fine mapping pen. The labels were then sprayed several times with a plasticizing compound, to make them waterproof and to prevent the bees from chewing them off.

The Eckhardt queen-marking tool has been available for some years. It consists of a small metal punch for cutting numbered discs from a sheet of paper or foil. A plunger inside the punch pushes the disc against a spot of glue previously put on the bee.

At Guelph we use a somewhat similar method. A series of numbers from 0 to 99 are typed on white paper and photographed, then reproduced on photographic film, reduced to 0-8 mm in height. These numbers can be punched out and fastened to the bees

with Duco paint. By using a series of dots and bars with the numbers, and by using paint of different colours, it is possible to give individual identifications to many hundreds of bees.

Wing clipping is commonly used for identifying queens. Some beekeepers clip the right wing one year and the left wing the next, as a guide to the age of the queen. A system commonly followed at bee research laboratories is to clip both wings of instrumentally inseminated queens, to distinguish them from naturally mated queens; this system is used at Guelph. The method cannot, of course, be used for any bees that are to fly afterwards.

An entirely new type of marker disc has just been developed by Bary. Numbered labels (weight 11 mg) were prepared by punching a 2-3-mm disc from 0-25-mm shim steel, and glueing to it a numbered plastic disc. The labels were attached to the abdomens of foraging bees captured in the field, using a special adhesive that remained somewhat tacky. A magnetic trap, consisting of four small horseshoe magnets, was fastened 9 mm above the floor of the hive entrance. As each labelled bee passed through the gap so made, it was suddenly drawn to the surface of a magnet. After a brief struggle it usually pulled free, leaving the label adhearing to the magnet. Gary reported over 90% recovery of the labels from bees tagged in this way.

One can readily see the advantages of such a method, for studies of the flight range and foraging distribution of bees from a hive, or from groups of hives. There is no need to station an observer at the hive entrance; the labels are recovered from the magnetic trap at the convenience of the investigator.

GROUP MARKING

Within this category we shall consider the marking of a somewhat larger segment of a colony or of its foraging population, when hundreds of bees may be given the same mark. This is often done by handling the bees individually and applying paint spots or discs as described above. McDonald

and Levin immobilized bees for marking by pressing them gently between a soft plastic sponge and a metal screen, through which the thoraces could be marked with paint; 75-100 bees could be dealt within 5 minutes.

The process of marking can be considerably speeded up if the bees do not have to be handled. Smith and his colleagues sprayed foraging bees with a hand atomizer containing titanium dioxide in alcohol, which coloured them white. They also sprayed returning foragers at the hive entrance with an alcoholic solution of basic fuchsin; the bees were captured, killed and moistened with alcohols to detect the marker. At Guelph we have dusted bees in a similar way with fluorescent powders. This has the advantage that only minute traces of the marking substances are necessary for identification, which is done by viewing under ultraviolet light. These fluorescent powders can be detected on bees captured and killed for examination, or on bees at the hive entrance, or on many of the flowers that have been visited by the bees. The last two methods require examination after dark with a portable ultraviolet light.

Dr G. H. Cale of Dadant & Sons, Hamilton, Illinois, has told me of a very rapid system he uses for group-marking large numbers of drones so that their origin can be determined for instrumental insemination. Frames of newly emerged drones confined above a queen excluder are removed from the hive and sprayed, bees and combs together, with a pressurized can of quick-drying lacquer. The sprayer should be fitted with a slatter-type head, so the paint is delivered in small droplets rather than as a mist. If the nozzle is held at least 30 cm from the comb, the drones will receive just a light spray, which is what is needed. Such drones can be released for free flight, and can be identified when recaptured later. Worker populations could be marked by a similar technique.

MASS MARKING

Sometimes it is necessary to identify all the bees from a hive or group of hives, for studies of flight behaviour. A genetic marker, whereby all the bees carry a distinctive hereditary coloration, can be used effectively under certain conditions. A racial characteristic can be used, such as yellow body in an area where the resident bee population is all black — or **vice versa.** The cordovan marker, a recessive gene that gives a coppery red colour to the bee's body and appendages, is effective for mass identification of a population. Peer used cordovan bees in his studies of the multiple mating of honeybee queens.

Suitable radio-isotopes, fed with syrup or honey to a honey bee colony, will quickly and positively identify all its members. Isotopes that have been used in studying the behaviour of social insects include phosphorus P32, gold Au198, carbon C14, and iodine I131. Lecomte has given a good review of radioactive marking methods, so the subject will not be pursued further here. Levin compared the use of a radioisotope (P32) and the cordovan gene for mass-marking foraging populations of honey bees; both methods gave similar results.

Smith and Townsend have described a technique whereby the bees are forced to pass over a special hive entrance-block coated with a fluorescent powder as they leave the hive. The whole foraging population was thus automatically marked in about 90 minutes. Bees captured in the field were subsequently examined under ultraviolet light to find out whether or not they came from the "marked" hive. Johansson and Free and Jay have used similar techniques in studying the foraging behaviour of honey bees.

SOME SPECIAL PROBLEMS

Light - coloured paint spots are generally better than darker colours for marking queens, because it is easier to pick them out against the background body colour. Unmarked black or banded queens are much more difficult to find in the hive than are yellow queens.

We have found that when a large number of paint colours are used, some of the shades may tend to fade when used on foraging bees, although this does not occur on queens inside the hive. A red that fades to pink could cause confusion where both colours are employed. To prevent this

problem arising, a test strip — with spots of all the paints it is proposed to use — should be exposed to the weather for a week or so beforehand and any colours that fade enough to cause confusion should be discarded.

Various investigators have resorted to anaesthetics to immobilize bees and facilitate marking. Paint spots, discs and complex symbols can be affixed much more precisely if the bee is motionless, and the paint can dry before the bee recovers sufficiently for the paint to get smeared. However, Ribbands, Simpson and Austin have shown that anaesthetics may effect the subsequent behaviour of the bees, so such a treatment should be given only after full consideration of the circumstances.

Ribbands found that light anaethesia with chloroform did not appear to affect their behaviour. Gary subjected field bees to a brief treatment with carbon dioxide from "dry ice" in a flask. The controlled mating of queens is normally carried out under anaesthesia with carbon dioxide, and it is a simple matter to mark the queen and to clip her wing(s) before she recovers.

Von Frisch immobilized field bees effectively by picking them up from flowers with a special pair of tongs fitted with squares of netting. Paint was applied to the body of the bee through the holes in the netting, without the use of an anaesthetic.

With the current increasing interest in the study of bee behaviour, marking techniques are assuming greater importance. Although this review is by no means comprehensive, it may serve to draw to the reader's attention some of the methods that have proved useful, and to stimulate the development of more techniques (like Gary's) that do not involve recognition.

*Reprinted from Bee World, Vol. 53, No. 1, 1972.

COMMENTARY from the Editor's Desk and Mail

A NEW PUBLICATION on the American scene is 'The Speedy Bee' published in Jesup, Georgia and mailed free to any beekeeper in the United States. The format is newspaper style, printed offset, and seems to be directed primarily to the smaller beekeeper. The publication is monthly.

★ ★ ★

EXTREMELY GOOD promotional material is produced by the Australian Honey Board in the interests of beekeepers throughout Australia. During a recent visit to the Board's offices in Sydney specimens were seen of general promotional material directed to the consumer, many of which could be well copied in New Zealand if we could find the finance to pay for the initial promotion. The results would soon recoup the outlay. Also seen in Australia was a colourful 7 lb. tin, which has tremendous eye appeal for both adults and children, featuring a honey bee and comb, gum tree flowers and a factual story on the advantages of eating the natural food in place of sugar. An empty tin was brought back for beekeepers here in New Zealand to see and perhaps persuade the tin manufacturers to produce a similar standard line.

★ ★ ★

AUSTRALIAN BEE CONGRESS seems to be getting well under way, and a number of acceptances by prominent beekeepers in various parts of the world have been notified. The Chairman of the South African Federation of Beekeepers, Transvaal, Peter Mountain, says that 16 apiarists from various parts of Africa are to attend, Professor Gordon Townsend, Chairman of the Bee Research Association, Professor Dr. Eng. V. Harnaj, President of Apimondia, will be guest speakers and Percy Berry of Hawkes Bay also plans to address Congress.

★ ★ ★

BEEKEEPERS IN SOUTH AUSTRALIA were having a rough time in July with the drought conditions, which had turned vast areas into

dry scrub. However, it is significant that the day the editor left for New Zealand the rains came, and flooding became the next worry.

Sydney packers were paying 19 cents a lb. with private sales at 20 cents.

★ ★ ★

IT SEEMS DIFFICULT to envisage an ecological connection between honey bees and delectable Babycham, but in fact there would be no beverage if the bees did not fulfill their foraging responsibility. The manufacturers of Babycham, Messrs Showerings, planted extensive pear orchards near Taunton in Somerset, U.K. and to make their commercial perry pear orchards a success have their own hives on the property to ensure adequate pollination. The special perry pears are a different variety from dessert Pears, and the latter would be quite unsuitable for the production of Babycham. As with cider, several varieties have to be grown to achieve the required blend of juices, and obtain proper fermentation and the resultant bouquet. Two hundred colonies are at present being utilised, and one colony is found to be adequate to every 2 acres of orchard. Buckfast and French Black strains are under trial.

★ ★ ★

THE COLUMNIST of 'Naturalist Diary' in the Melbourne Age was asked by a parson if he could explain the Biblical story of a colony of bees living in the carcase of a lion killed by Samson, since bees are known to avoid evil-smelling areas and to feed on pollen and nectar. This apparent anomaly has puzzled many people, particularly since the world's largest producer of golden syrup used the sketch of bees issuing from a lion's carcase, as a trade mark with the bye-line — Out of the Strong Came Forth Sweetness. The columnist explained that the origin of the story probably has a basis in fact since in very hot areas, as would be the case in Palestine, bees will use any suitable cranny, recess or cave to establish a colony, and a carcase of a lion would quickly become devoid of all flesh and would simply be a bone carcase covered with an umbrella of skin. The example is quoted in Booborowie, South Australia where there is a wide treeless plain, covered with paddocks of lucerne, and a carcase of a horse which had been dead for many months, resulting in a sun-dried hide over a skeleton was used as a wild bees' nest.

★ ★ ★

THE WHOLESALE PRICE of American honey doubled in 1971, averaging 22 cents to 25 cents a lb. and reaching a high of 32 cents. These are U.S. cents, and allowance must be made for depreciation in basic value in comparison with other currencies.

★ ★ ★

THE VENOM FROM beestings is a substance still not fully understood, and a toxic polypeptide has been isolated named Minimune, which, when injected into the larvae of a fruit fly, the grubs develop normally, but produces a fly perfect in its parts but only one quarter of normal size. These mini-flies produce normal-sized offspring.

INDEMNIFICATION PAYMENTS to 317 beekeepers totalled 912,000 dollars payment against loss sustained by spray damage in the United States. Congress has voted increased funds for compensatory payments.

★ ★ ★

PARISIAN POLICE have their own 'nuisance squads' comprising of beekeeping policemen, who collect summer swarms from trees on the boulevards. Twenty-five officers have fully equipped lorries and, under French law the police concerned become the owners of swarms which they take. Approximately one hundred calls are made for such police services annually.

★ ★ ★

COMMENT FROM a beekeeper's wife in the Nottingham 'Beemaster'. "The only time you take me steadily over a railway crossing is when you have some bees in the car as well." This criticism might well be justified in New Zealand!

★ ★ ★

A JAPANESE INVENTION called 'Elect-Cat' has been patented, which is guaranteed to remove rats for 100 sq. metres when in use. Ultra-sonic waves of 19,000 cycles, harmless to humans but anathema to rats, cost around £ in the U.K., and might be welcome in honey houses where poison could be a problem.

★ ★ ★

THE CANADIAN HONEY COUNCIL, formerly Canadian Beekeepers' Council, is working on an amendment to their Honey Regulations which require honey labelled as natural honey to meet specific requirements. The proposed draft was prepared in collaboration with the Fruit and Vegetable Division of the Canadian Department of Agriculture. The requirements are as follows:

"Natural honey" means extracted honey that has not been treated to remain liquid or to become granulated, that has not been heated to temperatures above 130°F. or to such an extent as to inactivate greatly or completely the natural enzymes it contains or to cause darkening in colour, that contains all its original component substances including detectable pollen, and is as far as practicable free from inorganic or organic matter foreign to its composition.

In addition, natural honey shall contain: not less than 65 per cent apparent reducing sugar content; not more than 17.2 per cent moisture; not more than 5 per cent apparent sucrose content; not more than 0.1 per cent water-insoluble solids; not more than 0.6 per cent ash; not more than 40 milliequivalents of acid per 1,000 grams; and shall have either a distaste activity, determined after processing and blending, as represented by a distaste figure on Gothe scale of not less than 8 provided the hydroxymethylfurfural content is not more than 40 mg/kg or a distaste activity, determined after processing and blending, as represented by a distate figure on the Gothe scale of not less than 3 provided the hydroxymethylfurfural content is not more than 15 mg/kg.

From The Canadian Beekeeper' Council, March 1972.

BEE STINGS are in the news again with an announcement that scientists James A. Vick, William H. Shipman and Chas. C. Hasset of Edgewood Arsenal's bio-medical laboratory have discovered that the substance apamin contained in bee venom is a life supporting compound. "Early indications are that apamin is capable of supporting a decreased cardiac work and preventing a generalized cardiovascular collapse," the scientists reported to the Federation of American Soccities of Experimental Biology in Atlantic City, N. J.

Experiments with animals show that apamin not only increased the heart rate and force of pulsation, but also assisted the heart rythm for 90 minutes with patients suffering from haemorrage and shock.

★ ★ ★

INSEMINATED QUEENS. Both the natural and artificial inseminations of queens introduce about 10-15 times as high an amount of sperm in the pair median oviducts as required to fill the spermatheca. The excessive amount of sperm is pressed out of the queen's body within 24 hours. Any further retention of sperm in the body impairs the health condition, and the queen dies on the fifth day. Sperm retention is the cause of large queen losses. The removal of the excessive sperm is mediated by the bees showing specific behaviour in relation to the queen during this process. The workers rub the queen's abdomen with their fore legs. If the contact of the workers with the queen is reduced the results of the removal of excessive sperm are impaired. The study of the removal of sperm from queen oviducts will make it possible to improve insemination and the results of natural copulation, and shed new light on the relations of the workers to the queen. Abstracted by Apimondia from an article by Vesely in Vcelarstri, 24, 1971.

★ ★ ★

A SPATE OF OVERSEAS beekeepers are expected in New Zealand within the next few months to visit apiaries and exchange ideas.
MISS SALLY McARTHUR of Brentwood Bay, British Columbia, Canada wrote in early June that she would be arriving here in July and had hired a Mini Traveller for getting around the country.

ARNOLD HILBERT OF HILBERT APIARIES, pioneers of cut comb in Traverse City, Michigan, USA, a third generation beekeeper, plans to visit New Zealand in January and will be touring round.

THOMAS N. HILLYARD of Knockahone, Barntown, Wexford, Eire is first visiting Australia and will journey on from there to New Zealand in the New Year. He will be visiting as many apiaries as possible and will be welcome for his wide knowledge and interest.

GEOFF DOUGLAS of Tamorth, NSW, spent four months in New Zealand as an exchange visitor and winner of the Rural Youth NZ Tour Award sponsored by the Bank of NSW. During his stay he was

the guest of the Federation of Young Farmer's Clubs. Starting at Wellington, Geoff stayed with families in the North and South Islands in bee keeping areas, and was able to visit research establishments.

Profiting from the experience gained and planning to put to practical use some ideas he saw on hive management and queen rearing and building up hive strength, Geoff was anxious to return to his 400 hive holding operated round a 100 mile radius from his home. His start in beekeeping began as an amateur with two hives producing $42 worth of honey.

★ ★ ★

A WELCOME VISITOR to Conference was Sally McArthur from Brentwood Bay, BC, Canada, who sat and listened patiently to our domestic wranglings and during recesses took every opportunity to meet apiarists and queen breeders. On the subject of queens to Canada, one of Sally's problems is that the point of arrival by air is to a very cold climate, whereas her own beekeeping area is more temperate. The suggestion is that the queens are likely to suffer through big changes in temperature in short periods of time to their disadvantage performancewise. Re-routing is being investigated.

★ ★ ★

THE BEE RESEARCH ASSOCIATION is providing the beekeeping industry a tremendous service in making available copies of their leaflet 'B.R.A. Research News'. These leaflets are re-prints from BEE WORLD and are designed to keep beekeepers up to date with scientific advances that can be applied in practice. Examples are 'The effect of smoke on Bees,' 'Feeding Bees for Winter', 'How to prevent Drifting,' and 'Some notes on Queen introduction'. Beekeepers anxious to pass their National Diploma in Apiculture would be particularly helped in studying these leaflets, which can be obtained free from The Bee Research Association, Hill House, Chalfont St. Peter, Gerrards Cross, Bucks, England SL9 ONR. In fairness to the Association, would-be recipients of these helpful leaflets should provide an International Postage Reply Coupon to cover the cost of surface or airmail despatch.

★ ★ ★

THE HONEY MARKETING AUTHORITY had three members of the staff leave at the end of July, and the staff held a small get-together to farewell R. (Bob) Macdonald, the General Manager, Bill Whitby who is taking a trip back to the old country for a holiday, and W. A. Van Rooyen of the office staff who is leaving for new pastures.

Parting gifts were given to all three members.

POLLINATION AGREEMENT

The importance of pollination of crops by Honey Bees is well-known overseas, particularly in America where Pollination Agreements are freely entered into by beekeeper and grower. This specimen is reproduced by courtesy of The Department of Horticulture, University of Illinois.

This agreement is made ..... (date) 19..... between ..... (grower's name), hereinafter called the grower, and ..... (beekeeper's name), hereinafter called the beekeeper.

1. TERM OF AGREEMENT. The term of this agreement shall be for the 19..... growing season.

2. RESPONSIBILITIES OF THE BEEKEEPER.

a. The beekeeper shall supply the grower with ..... hives (colonies) of bees to be delivered to the ..... (apple orchard, cucumber field, etc) as follows:

(Fill in the appropriate line or lines and cross out those that do not apply.)

Approximate date: .....

..... days after written notice from the grower.

Time in relation of amount of crop bloom: .....

.....

Description of location(s): .....

.....

The beekeeper shall locate said bees in accordance with directions of the grower, or, if none are given, according to his judgement in providing the maximum pollination coverage.

b. The beekeeper agrees to provide colonies of the following minimum standards:

A laying queen and the following:

..... frames with brood with bees to cover.

..... pounds of honey stores or other food.

..... story hives.

The grower shall be entitled to inspect, or cause to be inspected, each colony of bees after giving reasonable notice to the beekeeper of his intent.

c. The beekeeper agrees to maintain the bees in proper pollinating condition by judicious inspection and supering or honey removal as needed.

d. The beekeeper agrees to leave the bees on the crop until:

(Fill in the appropriate line or lines and cross out those that do not apply.)

Approximate date: .....

days after written notice from the grower.

Time in relation to amount of crop bloom: .....

.....

Other: .....

3. RESPONSIBILITIES OF THE GROWER.

a. The grower agrees to provide a suitable place to locate the hives. The site must be accessible to a truck and other vehicle used in handling and servicing the colonies. The grower shall allow the beekeeper entry on the premises whenever necessary to service the bees, and the grower assumes full responsibility for all loss and damage to his fields or crops resulting from the use of trucks or other vehicles in handling and servicing such bees.

b. The grower agrees not to apply **highly toxic** pesticides to the crop while the bees are being used as pollinators nor immediately prior to their movement if the residue would endanger the colonies. See Illinois Circular 940, "Pesticides and Honey Bees," for classification of pesticides. The following pesticide materials, other agricultural chemicals, and methods of application are mutually agreed to be suitable while the bees are on the crop:

The grower agrees to notify the beekeeper if hazardous materials not listed are to be used. The cost of moving the bees away from and back to the crop to prevent damage from highly toxic materials shall be borne by the grower.

c. The grower agrees to pay for ..... colonies of bees at the rate of $..... per colony. Payment shall be made to the beekeeper as follows: $..... per colony on delivery and the balance on or before ..... (date) of said year. Additional moves or settings shall require $..... per hive per move.

d. The grower agrees to provide adequate watering facilities for the bees if none are available within one-half mile of each colony used in pollinating the crop.

4. PERFORMANCE. It is understood and agreed that either party to this agreement shall be excused from the performance hereof in the event that, prior to delivery of the colonies, such performance is prevented by causes beyond the control of such party.

5. ARBITRATION. If any controversy shall arise hereunder, between the parties hereto, such controversy shall be settled by arbitration. Each party within 10 days shall appoint one arbitrator, and the two so named shall select a third, and the decision of any two such arbitrators shall be binding upon the parties hereto. The cost of such arbitration shall be divided equally between the parties.

6. ASSIGNMENT OR TRANSFER. This agreement is not assignable or transferrable by either party, except that the terms hereof shall be binding upon a successor by operation of law to the interest of either party.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year above.

.....

Grower

.....

By

.....

(address)

.....

Beekeeper

.....

By

.....

(address)

HONEY MARKETING AUTHORITY

WHOLESALE PRICE RANGE EFFECTIVE 1st AUGUST, 1972

After protracted negotiations with the Price Tribunal to substantiate an increased price for packed lines of honey to improve the net return to beekeepers we have now been instructed by the Price Tribunal to reduce our wholesale prices by 3 cents a pound from 1st August.

In accordance with this decision the following is the amended wholesale price range — operative from 1st August, 1972.

Description	Packer to Wholesaler
Imperial Bee	**Per Dozen**
½-lb Pots	$1.88
1-lb Pots	$3.42
1-lb Glass Jars	$3.87
2-lb Pots	$6.73
5-lb Tins	$16.85
28-lb Tins	24¼ cents per lb
58-lb Tins	23¼ cents per lb
Honey Gold	
½-lb Pots	Per Dozen $1.82
1-lb Pots Wax	Per Dozen $3.32
2-lb Pots	Per Dozen $6.53
5-lb Tins	Per Dozen $15.75
Selected Sources	
½-lb Plastic Pots	Per Dozen $2.14
1-lb Glass Jars	Per Dozen $3.92
3 x ½-lb NZ Honeys	Per Dozen $7.93
5-lb Tins Assorted	Per Dozen $17.10

	Hollands	Meadowcroft Three Bees
	Per Dozen	**Per Dozen**
½-lb Pots	$1.88	—
1-lb Pots	$3.42	$3.42
2-lb Pots	$6.73	$6.73
5-lb Tins	$16.85	$16.85
1-lb Glass Jars	—	$3.92
10-lb Tins	—	$32.40
28-lb Tins	24¼ cents per lb	24¼ cents per lb
58-lb Tins	23¼ cents per lb	23¼ cents per lb

Prices include freight to nearest railhead for 5 cartons and over, under 5 carton lots — Freight Clients account.

C. W. CARR,
General Manager

BRANCH NOTES

HAWKES BAY

At the Annual General Meeting the executive officers elected were —
President — Walter Watt.
Vice-President — Les Maultsaid.
Secretary — Geoff Bomgard.
Delegate to Conference — Percy Berry.

Recently the branch members were shown a very interesting colour film on the production of Ling Honey in the British Isles.

We extend a warm welcome to our President on his return from a two month visit to England; it is good to have Walter back again.

Hawkes Bay members who attended the Conference in Kaitaia, were Percy Berry, Freda and Les Maultsaid, Sybel and Bill Ashcroft and the Dudley Ward family from Dannevirke. Despite the rain in the area, we all think the 'Winterless North' is not too bad, and thank the Kaitaia Branch for making us all so welcome.

Reported by Freda D. Maultsaid

WAIKATO

Winter has been cold with heavy frosts, and the sight of pastures burned brown by frost points well for the coming season.

Heather is flowering well, while Five Finger has plenty of buds but seems a little late.

Wasps have done very little damage, except that some nuclei have been lost, but there will not be a large number of hives to make up as in previous years.

Some are doing what they can to try and reduce the large losses of queens that occurred last Spring. Sterilisation of both nuc boxes and combs has been attempted, so it will be interesting to see if this helps.

The Caucus Report received the Branches' consideration, but like Conference, the further it was discussed the less use the document became until we had what we had had before, and were still looking for a solution. May we find it soon before it is too late.

Reported by C. Bird

WEST COAST

Due to the loss of field bees through the combination of persistant cool winds and fine weather with no nectar secretion from mid January, there are many hungry hives on the Coast.

Temperatures were often just high enough to encourage the bees out to search for non-existant nectar, and then turn cool preventing them from reaching home.

This will be the first time I have had to feed sugar in all the years I have kept bees.

The rata was the main topic at our meeting recently and there were nearly as many reasons put forward for its demise in places as there are dead trees.

Whether it be the woodsman's chainsaw, the 'possum, a black fungus, a borer or a combination of several or the lot, or the string of exceptionally mild winters, it is becoming urgently necessary that some responsible organisation does something to stop the rot, for the sake of the West Coast beekeeping and tourist industries.

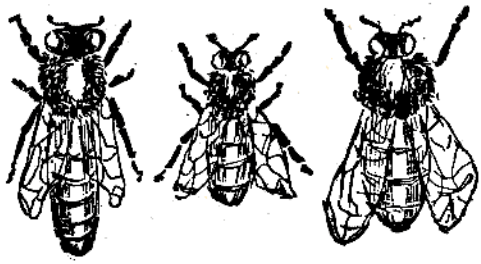
When the malady hits Otira it won't be such a glorious scenic drive if there's nothing but hillsides of dead sticks and slips to look at.

If apiarists find their workforce of bees suddenly reduced to almost nil, and their stand is near flowering kowhai, they probably need look no further.

According to forestry research the kowhai in bloom can be 95% fatal to field bees, especially if temperatures drop while the bees are out.

The only bees that survive are those astute enough to nick through the base of the flower for their sup, for it is the pollen that is the culprit.

Reported by Peter Lucas



THE MYSTERY OF EGG-LAYING

However old one is one can learn something every day. As a proof of this I would like to quote an article which appeared in "la Belgique Apicole" and signed by P. Reginald and which appeared in the Swiss Journal (Jan./Feb., 1971).

Up to recently it was admitted that the queen could lay two kinds of eggs at will: eggs fertilised by her and which, laid in worker cells, produced workers and non-fertile eggs laid in drone cells which, naturally produced drones.

Well! It seems that this is not so. In order to fully understand what follows let us be clear as to what a fertile egg means. In order that fertility may take place, both in the vegetable kingdom and in the animal kingdom there must be the conjunction, the union of what are called gametes, the gamete or male element and the female element or ovule. This fertilisation is general except in the case of hermaphrodites which, having both sexes look after their own concerns, as, for example the snails.

However, according to the findings of a Japanese scientist named Hachinoke of the National Institute of Agriculture in the University of Pensylvania (U.S.A.) the above theory was good enough for beekeepers in our grandfathers' days. Having made thousands of experiments this scientist has found that all eggs laid by the queen are covered by a layer of the sperm which is in the spermatheca.

Fundamentally, we prefer this theory. We cannot see how the queen could cover or not coevr the egg sperm without dribbling. So, according to Hachinoke, all eggs are covered with an abundant layer of sperm and on the future sex of the eggs laid the queen has absolutely no control.

One more illusion gone. Her Royalty is well and truly usurped since she has no personal power and that it is not she but the workers who decide.

To be completely objective we admit that the scientist Hachinoke has not put over anything new. A long while ago a colleague of ours,, Brother Francis, had stated in his book, "Les Abeilles et l'Apiculture Moderne" (Bees and Modern Apiculture): "The role of the queen has been questioned more and more. All the eggs are identical, she does not decide whether an egg is to receive sperm or not."

Evidently the findings of Hachinoke are more precise; he has at his disposal material and elements which Brother Francis lacked but we wish although rather late in the day to give the latter his due.

What the Americano-Japanese has discovered is that in order for fertilisataion of the egg to take place the spermatozoon must penetrate into the ovule contained in the egg through a small slit intended for this purpose — a delay of 60 to 70 minutes has to elapse.

This delay is used by the workers to dispose of the spermatozoon if it is an egg laid in a drone cell or to leave matters alone in the case of eggs laid in worker cells.

We cannot understand the mechanism of this and it is merely a hypothesis. Do the workers lick the male eggs, do they coat the surface with a secretion which sterilises the spermatozoon?

At any rate, if the workers cannot contact the male eggs within 75 minutes the entire complement of eggs

will produce workers even — and this is important — those which have been laid in drone cells.

To sum up, according to Hachinoke:

1. All the eggs laid by the queen are covered with a layer of spermatozoon.

2. The bees have 75 minutes to make up their minds which eggs are to be fertilised. This might be termed autofertilisation — in which the queen takes no part.

3. We do not know for the moment what mechanism brings about the destruction of the spermatozoon on the male eggs. Everything comes to him who waits!

Therefore the queen is only a laying machine and her laying is conditioned and, on the whole, directed by the workers who carry on in their own way.

Our queens are therefore in full decline as shown above.

—Alin Caillas

l'Abeille de France. Dec., 1971 pp 400 and 401.

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THE N.Z. BEEKEEPER

This Journal is issued to all members of the National Beekeepers' Association and direct subscribers.

Literary contributions and advertisements must be in the hands of the Editor, Mr L. W. Goss, P.O. Box 3561, 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.

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Quarter Page	$5.00	Per Inch	$1.50
Half Page	$9.00	Min. Charge	75c.
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Front Page Story

PICTURED on the front cover is a section of beekeepers, wives and visitors to Conference at Kaitaia in the 'Winterless North' of the North Island. Winterless it may well be so far as temperature is concerned, but during the currency of Conference someone omitted to arrange with the Clerk of the Weather to shut down the overhead water supply and electrical arrangements. However, torrential rain, vivid lightning and tumultuous thunder did nothing to reduce the welcome from branch members to beekeepers from the whole of New Zealand including a goodly contingent from Southland.

Delegates seemed to be acutely conscious of their responsibility; there were far fewer histrionics, sarcastic comments or personal abuse of non-conformists, and under the firm but impartial direction of the Chair, few challenges were made.

Time will tell whether deliberations and decisions were the correct ones in the interests of the industry, and without psychic powers we can only hope that conscience and not personal gain was the guide.

New young blood on the Executive of the Association is always desirable, and the young men elected will have to grapple with problems that have not been satisfactorily settled by past generations of the Association's governing body. Everyone, not least former members of Executive, will wish them well in their efforts.

BOUGHTWOOD PRINTING HOUSE, North Shore