

THE NATIONAL BEEKEEPERS' ASSOCIATION

of N.Z. Incorporated

President :

Mr. T. S. WHEELER Otewa Road, Otorohanga.

Vice-President:

Mr. G. WINSLADE 1H R.D., Oamaru.

Executive :

Mr D. A. BARROW 44 Baycroft Ave., Tauranga.

Mr. F. BARTRUM Pleasant Point, South Canterbury.

Mr. T. GAVIN Titoki, 2 R.D., Whangarei.

Mr. J. GLYNN Box 5, Balfour, Southland.

General Secretary :

Mr. K. E. MOODY A.P.A.N.Z., A.C.I.S. P.O. Box 127, Upper Hutt

Editor:

Mr. L. W. GOSS P.O. Box 3561, Auckland

Hon, Librarian :

Mr. CHRIS DAWSON P.O. Box 423, Timaru

BRANCHES

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NORTHLAND President: Mr. A. G. Tucker, 35 King Street, Whangarei Secretary: Des Cullen, 15 Grey Street, Whangarei.

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C / S. HAWKES BAY President: Mr. D. L. Ward, Guy Street, Dannevirke Secretary: Mr. E. Rowe, 6 Runciman St., Dannevirke.

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CONFERENCE 1967 was undoubtedly an outstanding event, and the publicity gained for the industry by the successful promotion of the National Honey Queen contest must be worth thousands of dollars in hard cash.

The members of the Branch who undertook the onerous responsibility of organising the events ancillary to Conference are to be congratulated for their foresight and thoroughness. Not only did shops which stand to gain from the sale of honey participate in HONEY WEEK in Canterbury, but the highest class fashion store in Christchurch devoted a complete window on their main frontage to a simulated scene of a beekeeper working at his hive. Here indeed was power of persuasion in obtaining co-operation for a non-profit motive. For the uninitiated it must be emphasised that store management rates highly the selling power of its window displays and a good display is quickly reflected in the department's merchandise featured.

The social evening at the city's number one HEI HEI COUNTRY CLUB—taken over in entirety for the evening's entertainment—was the ideal venue for the crowning ceremony of the HONEY QUEEN. A swinging band for dancing, with cabaret for those who preferred to watch, provided an excellent levening's enjoyment, and it was no little surprise to the guests when the strains of Auld Lang Syne were heard at 1 a.m. as a reminder that it was time for bed preparatory to another full days work at Conference.

It seems perhaps, remiss, to strike a nega-

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DOMINION CONFERENCE July 12 - 14, 1967

Conference 1967 at Christchurch was an outstanding success, and tribute is paid elsewhere in this issue to the work and organising ability of the Branch officers responsible. Under the Chairmanship of National President Trevor Wheeler, business sessions proceeded smoothly, many of the remits involving debate and amendment to satisfy the will of Conference.

Proceedings were formally opened by Christchurch's friendly man of-the-people Sir George Manning, Mayor for 10 years and popular with all political shades of opinion.

Before formal business proceedings began, Conference had the pleasure of a preview of HONEY QUEEN contestants who joined the Mayor on the stage and were individually presented by name and branch representation to the audience.

The Domestic Group of the host branch also took the opportunity to present to the matron of the Hohepa Home for intellectually handicapped children a substantial donation of honey purchased from surplus funds and reinforced by a similar quantity from the H.M.A.

Both metropolitan newspapers gave unstinting support to faithfully reporting Conference business, items of general interest being transmitted over the Press Association teleprinter network to newspapers throughout New Zealand.

Radio and television also publicised the Christchurch Conference with interviews of personalities within the industry, and a feature screened on TOWN AND AROUND showed a HONEY QUEEN contestant in a departmental store.

Weather conditions were ideal—though a trifle chilly for those more accustomed to Northern climatic conditions—and the opening session audience totalled 150.

Two distinguished visitors from Australia who were particularly welcome, and who were able to contribute materially their knowledge and information on beekeeping problems were Mr Keith Mr Doull, Senior Lecturer at Waite Agricultural Research Institute, Adelaide, N.S.W. and Mr Harold Peck, Chairman of the Federated Council of Apiarists' Associations in Australia.

Business lasted for the full three days--including evening sessions-and Conference 1967 closed at 3.15 p.m. on the afternoon of Friday, July 14.

Since Conference coincided with decimal conversion week, costs are detailed in sterling.

REMITS

REMIT NUMBERS CORRESPOND TO THOSE APPEARING ON THE ORDER PAPER, AND IN SOME INSTANCES WERE AMENDED BY UNANIMOUS CONSENT OF THE MOVER AND SECONDER. REMITS NOT DETAILED WERE EITHER WITHDRAWN OR LAPSED. MOVERS OF MOTIONS WERE PERMITTED THREE MINUTES, OTHER SPEAKERS TWO MINUTES, RIGHT OF REPLY TWO MINUTES SUBJECT, IN EACH CASE TO EXTENSION OF TIME AT THE WILL OF CONFERENCE.

N.Z. BEEKEEPER

DEPARTMENTAL

(1) AUCKLAND: "That this Conference express appreciation of the services of the part-time inspectors and advise the Department of Agriculture that it is the wish of Conference that their work be continued as previously." (Belin/Bray) Carried.

(2) BAY OF PLENTY: "That this Conference express its appreciation to the Director of the Horticulture Division for his support and to the various officers who have contributed articles to the N.Z. Beekeeper over the past year." (Forsyth/Holland) Carried.

(3) BAY OF PLENTY: "That this Conference request the Executive of the N.B.A. to conduct an up to date cost of production survey for the honey industry." (Forsyth/Penrose. Amended Holt/Carey) Carried.

RESEARCH

(5) OTAGO: "That the Executive approach the appropriate authority to investigate the nectar secreting qualities of new strains of clover with the view to encouraging the use of those strains with those qualities." (Heinemann/Fraser) Carried.

(6) GORE: "That Wallaceville Research Station or D.S.I.R. carry out research into the failure of white clover flowers to yield nectar." (Herron/Barrow) Carried.

(7) GORE: "That Wallaceville Research Station or D.S.I.R. look into the effect of hormones and sprays on the secretion of nectar and setting of seeds." (Herron/Davidson) Carried.

(8) BAY OF PLENTY: "That the Department of Agriculture be requested to make a survey of New Zealand pollens to determine their protein and mineral value." (Barrow/Lorimer) Carried.

(9) NORTH OTAGO: "That Conference asked the Executive to approach the Lincoln College "Farm Machinery Testing Station" for assistance in the development and testing of beekeeping machinery." (Winslade/Bartrum) Carried.

(10) SOUTH CANTERBURY: "That the Department of Agriculture investigate the incidence of Nosema and conduct trials to determine costs, and the value of using Fumidil 'B' to combat outbreaks." (Simpson/Cloake) Lost.

(11) GORE: "That the Department of Agriculture carry out survey on Nosema or crawling disease with regards to effecting a remedy." (Herron/De Witt) Carried.

MARKETING-(LOCAL)

(12) GORE: "That this Conference press for an increase of 2½c. per lb. of honey to the producer." (Herron/Bray-Pro Forma) Carried.

(13 WAIKATO: "That this Conference supports the policy of the H.M.A. in selling on the market that will yield the best return to the Producer." (Carey/ Lorimer Amended Berry/Gavin) Carried.

(15) WAIKATO: "That the specific gravity of honey supplied to the H.M.A. be based on acceptable world standards." (Tuck/Lorimer) Lost.

(16) SOUTH CANTERBURY: "That the N.B.A. recommend that all beekeepers charge farmers for moving hives of bees on to Red Clover or Lucerne seed crops and pollinating services." (Simpson/Tuck) Carried.

MARKETING-ADVERTISING

(17) CANTERBURY: "That honey promotion on a national basis be initiated by the N.Z. H.M.A. in the form of a National Honey Week throughout New Zealand at time of Conference." (Penrose/Bray) Carried.

MARKETING--(OVERSEAS)

(19) SOUTH CANTERBURY: "That close liaison be maintained by the Beekeeping Industry with other Primary Producer Bodies, in order that overseas marketing suffers the minimum of disruption when Britain joins the European Economic Community." (Simpson/Gumbrell) Carried.

(20) HAWKE'S BAY: "That Conference is of the opinion that Kimpton Bros. should be given notice by the Honey Marketing Authority that commission rates be reduced to 2% only." (Berry/Gordon) Lost. (21) WAIKATO: "That in view of the need for the continuation of consistent exports of honey and the national need of overseas funds the Honey Marketing Authority exports the maximum amount of honey possible, provided the returns are profitable." (Carey/Holt) Carried.

LEGISLATION

(22) SOUTH CANTERBURY: "That the Apiaries Amendment Act 1965 be amended so that no Statutory Declaration is required." (Bartrum/Heinemann) Carried.

(24) SOUTH CANTERBURY: "That the Aplaries Amendment Act 1965, be amended so that only the location and number of hives be required to be given for Aplaries with diseased hives." (Bartrum/Cloake Amended Penrose/ Ashcroft) Lost.

(25) WAIKATO: "That Section 2 Subsection 2 of the Apiaries Amendment Act 1965 be amended to read—Shall inspect or cause to be inspected for the presence of disease all hives owned by him not later than 31st March in each year etc." (Tuck/Carey) Lost.

(26) HAWKE'S BAY: "That Conference expresses to Government strong disapproval of that section of the Horey Marketing Authority Regulations which states that the Government representative on the Honey Marketing Authority shall in addition to his other functions represent the interest of consumers of honey. Further, Conference urges that this provision be deleted from the Regulations forthwith." Berry/Gordon) Lost.

(27) SOUTH CANTERBURY: "That the final draft of all new Apiary Regulations and Amendments be submitted to our National Executive for their approval." (Bartrum/Simpson) Carried.

BEEKEEPING-INSPECTION

(28) WAIKATO: "That it be a policy decision of the N.Z. Beekeepers' Assoc. that wherever practical the National Executive shall submit all proposals relating to new or revised legislation affecting the industry to all branches of the Association for considertion." (Carey/Belin) Carried

(31) WAIKATO: "That a blank card similar to former registration cards be available to notify instructors of B.L." (Tuck/Carey) Carried.

(32) WAIKATO: "That where necessary a beekeeper be notified and required to assist in the inspection of his hives by the Department." (Tuck/Carey Carried.

BEEKEEPING (POLLINATION)

(33) SOUTH CANTERBURY: "That the N.B.A. confer with the Farm Forestry Association with a view to securing the support of that body to formulate a scheme to encourage the planting of trees beneficial to pollinating insects, and the secreting of nectar." (Simpson/Gumbrell) Carried,

(34) OTAGO: "That the Executive approach the appropriate authorities, Ministry of Works, and other appropriate bodies, with the view of getting more pollen bearing and nectar secreting trees planted." (Heinemann/Carey) Carried.

BEEKEEPING—CONTAINERS

(35) AUCKLAND: "That the 5 gallon drums be standardised with 21 in. bungs." (Belin/Holt) Carried.

(36) GORE: "That the attention of tin manufacturers be drawn to the poor quality of the honey tins manufactured." (Herron/Glynn) Carried.

(37) WAIKATO: "That in view of the fact that H.M:A. drums have surely paid for themselves and to encourage more supplies to the H.M.A. the charge on drums be abolished or considerably reduced." (Carey/Holt). Lost.

CONFERENCE

(38) CANTERBURY: "That this Conference recommends that in future a one day Symposium be held to take place on the first day of Conference thereby reducing the normal business session to two days." (Bray/Penrose) Carried.

(40 AUCKLAND: "That the Executive hire a suitable sound system for Conference and test it prior to Conference." (Belin/Jenson) Carried.

(41) GORE: "That this Conference press for immediate removal of provisional payments of income tax to self employed persons (beekeepers)." (Herron/ Davies) Carried.

NOTICES OF MOTIONS FROM EXECUTIVE

- (44) SUBSCRIPTIONS: "That the subscription scale be amended by
 - (1) the deletion of the section $\hat{}$ up to 60 colonies 10/- (minimum) 90 colonies 15/-.'
 - (2) The substitution therefore of 'up to 90 colonies 15/- (minimum)." (Glynn/Holland) Carried.

(45) HONORARIUM: "That Conference set up a sub-committee to consider the matter of the Honorarium paid to the President and ask this sub-committee to bring down recommendations thereon before the conclusion of Conference." (Glynn/Holland) Carried.

NOTE: A sub-committee to consider the question of the President's Honorarium was formed from three members from the floor who recommended that the honorarium of $\pounds 25$ fixed at that sum fifteen years ago be increased to $\pounds 40$ to be more realistic and in keeping with increased costs of out-of pocket expenses. The President vacated the Chair and the meeting under the authority of the Vice President and on the motion of Carey/Fraser unanimously agreed to the increase.

(46) ELECTION OF GENERAL EXECUTIVE: "That it be a policy decision that the election of the General Executive be held on the afternoon of the second day if Conference is going to terminate on that day." Amended (Berry/Gordon) Lost. Amended: (Cloake/Penrose) Carried.

(47) AMENDMENTS TO ASSOCIATION RULES: Amendments were proposed for the purpose of improving the Rules of the Association and to ensure that the functions of the Association and its Executive Council are full provided for. Executive, in consultation with the General Secretary and legal advisors considered that revision was essential to the good order and management of the Association. Some necessary work could not, in fact, be carried out under the provisions of the old rules and complete revision was long overdue.

Each suggested alteration was listed in detail, and the Chairman invited any member requiring clarification on any point to consult a sub-committee of Executive formed for the purpose of explaining the introduction of new rules and alterations to old. On the adjournment many members availed themselves of this facility and thus saved the time of Conference in seeking information from the floor.

Each rule and alteration was taken individually by the Chair on resumption of business, and alterations made where suggested and agreed upon by Conference. AMENDMENTS TO ASSOCIATION RULES: (Holland/Gumbrell) Carried unanimously. New rule books will be prepared and printed and distributed to Branch Secretaries as soon as possible.

LIFE MEMBERSHIP

Executive recommended the bestowal of Life Membership on two distinguished members for their long and active service to the beekeeping industry in the persons of:

GEORGE GUMBRELL of Geraldine, and ARTHUR ECROYD of Christchurch.

Mr George Gumbrell served in all offices of his local branch, on the National Executive as an active member and as Chairman of the Honey Marketing Authority. Speakers in support of the conferment included Messrs Harry Cloake, Jack Fraser and "Billie" Bray Snr.

Mr Arthur Ecroyd was General Secretary of the N.B.A. in the 1930's when financial circumstances were such that the office had to be an unpaid one, and he became a Director of the Honey Producer's Association which was New Zealand's first attempt at organised Marketing. He founded the business which carries his name in 1913, and had served as branch President and Secretary. Tributes from the floor came from Messrs Tom Pearson, Dudley Lorimer, T. Penrose Snr. and others.

Election was by unanimous and popular consent and both members were presented by the Chairman with their Life Member Certificates.

ELECTION OF OFFICERS—PRESIDENT

The only nomination received for the office of President was the present holder, **Mr Trevor Wheeler** and on the motion of Cloake/Penrose was unanimously re-elected.

VICE-PRESIDENT

On the motion of Newton/Penrose Snr Mr George Winslade was re-elected. MEMBERS OF THE EXECUTIVE

A number of nominations were made for both North and South Island representatives, as a result of which a secret ballot was made with Messrs Forster and Griffin, Department of Agriculture officers, as scrutineers and the following result declared—:

NORTH ISLAND Messrs Don Barrow and Terry Gavin. SOUTH ISLAND Jack Glynn and Fred Bartrum.

NOTICES OF MOTION FROM THE FLOOR OF CONFERENCE of which notification had been given in accordance with the Rules:

"That this Conference records its real appreciation to Mr Tom Pearson for his work on the Agricultural Chemical Board and re-affirms the importance that it attaches to his continued representation thereon, and endorses the work done by Mr T. Palmer-Jones on the testing of Agricultural chemicals and urges that this research work continues to receive the highest priority. (Fraser/Glynn) Carried Unan.

CONFERENCE VENUE 1968. "That Conference 1968 be held under the auspices of Waikato." (Carey/Gordon) Carried.

HEALTH DEPARTMENT "That Apiary Instructors be made available to assist Health Department officers in the taking of samples from colonies of bees to check for the use of drugs in the treatment of diseases." (Glynn/Winslade) Carried.

DEPARTMENTAL WORK "That in the month preceding the annual Conference, the Department of Agriculture be requested to submit to Executive a Report surveying their work for the preceding 12 months, setting out their work as follows: 1. PROJECTS REQUESTED; 2. PROJECTS COMPLETED; 3. PROJECTS UNDER ACTION; 4. PROJECTS PROJECTED." (Carey/Bray) Carried.

REPORTS

CONFERENCE 1967 was noteworthy for the exceptional quality and interest in reports and addresses, some of which are reported in this issue in full or in extract form due to pressure on space. The absorbingly informative address by Mr Keith Doull of the Waite Institute, Adelaide, Australia is far too interesting and instructive to present in a condensed form and will therefore be held over for publication in full in the following edition of THE NEW ZEALAND BEEKEEPER.

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QUEEN BREEDING PROJECT

Vice President George Winslade reported with regret that support for this ambitious but wholly practical scheme had not been sufficient to justify pursuance. Following the lead from the Whangarei Conference last year, investigation had been made to ascertain the extent of support which could be relied upon from within the industry in relation to financial support and the number of queens required from an industry-sponsored queen rearing establishment. Although support was initially encouraging, the total amount of money assured was in the region of £3,000, which would not have provided sufficient working capital to acquire suitable buildings and equipment. Requests were made for 1,500 queens in the first year of projected operation.

The effort was made, and a great deal of voluntary work was undertaken by a number of people, but if the industry is not ready or does not want a self supporting scheme which might well have enabled the introduction of larvae in immature form from overseas, there is no tangible alternative but to shelve the project for the time being at least.

It is interesting to note that a similar scheme was mooted by the late Mr George Swanson some twenty years ago, and the only support he received at the time was from Mr George Gumbrell. The originator having only received the support of one man, perhaps it might be said that we have progressed. The fact, however, that the extent of the support was insufficient to enable a real start to be made is extremely disappointing to the Queen Breeding committee and supporters, and cannot be particularly encouraging to departmental scientists who were prepared to assist the industry with the detection of possible infection or disease.

EXTRACTS FROM PASSION VINE HOPPER REPORT by A. C. Ward, 1966-1967

The Passion Vine hopper was also noticeably later in making its appearance this year, the first cottontail hopper on wisteria being seen at Waihi in early December, and were much smaller than in the previous year.

Mr Basil Jones reported hatching cottontail in late October at Whakatane, so small that a microscope X100 had to be used to observe the shape and movement of the insects.

By December 19 a few hoppers were seen on Tutu at Pikowai but there was no honey dew, and at Whakatane a heavy infestation on privet and fennell but very light on tutu.

At Otararakau some small hoppers were seen on Tutu with some honey dew but no bees were seen, only ants.

By January 26 adult winged hoppers were very noticeable but not plentiful, and still a lot in the hopper stage, with heavy infestation on privet, fennell, fern etc. but not very numerous on tutu.

In the Waikato, Auckland and North Auckland districts observers reported little hoppers on tutu although plentiful on other plants.

One new observation this year was apparently a second hatching. In late February very small cottontails were on the underneath side of hydrangea leaves.

By the end of April winged hopper had laid eggs on the small dried twigs which is the usual procedure, and had disappeared.

This year's observations appear to be very similar to last year. The hopper was late in hatching and because of the weather conditions were no problem.

With a warm early Spring, conditions could change, especially if followed by a dry Summer.

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BURSAR-VISIT TO CANADA

Mervyn Cloake addressed Conference on some of the practical aspects of his working visit amongst beekeepers on the American continent, and the subject of his address will be dealt with fully in a subsequent issue.

POLLEN SUPPLEMENTS AND NOSEMA

A most welcome visitor to Conference from Australia was Keith M. Doull, Senior Lecturer at Waite Agricultural Research Institute, Adelaide. A verbatim report of his absorbingly interesting lecture will be published in the next edition of THE NEW ZEALAND BEEKEPER. Additionally, he gave an illustrated slide session during an unscheduled evening meeting on the Thursday of Conference. At the same session, Mr Harold Peck, Chairman of the Federal Council of Apiarists' Associations in Australia spoke about Australian conditions. As a compliment to the interest taken in both speaker's subjects, mention is made of the fact that closure could not be made until after 11 p.m.

AGRICULTURAL CHEMICALS BOARD

Mr Tom Pearson, the Association representative on the Agricultural Chemicals Board referred to the fact that we live in an insect world and, despite man's ingenuity, he has not yet been able to exterminate a single insect species. To master devouring hoards, man has been forced to use to the utmost all the resources he can muster. Insect populations fight back and change their tactics to meet new threats to their supremacy. For example, in the U.S.A. it is estimated that the work of 1,000,000 agricultural workers is destroyed by insect pests each year. In 1964, the late Dr Cottier estimated the loss to N.Z. from the ravages of grass grub and porina caterpillar alone to be in the region of £30,000,000—a staggering sum—before the use of DDT.

The Agricultural Chemicals Board was formed in 1959 as an overall Authority to ensure safe usage of chemical materials used in insect control, with particular emphasis on the protection of beneficial insects, useful crops, plants, vines etc. and complaints of misuse are investigated. Regulations control proper usage and prosecutions are instigated for breaches.

The Board is of the utmost importance to the honey industry in that every beekeeper dependent on pasture nectar sources is vitally affected by the fortunes or misfortunes of the farming community in this respect. Control of insect pasture pests is almost as important as the protection of his bees from destruction.

In a plea for greater co-operation between aerial operators, ground contractors and farmers, Mr Pearson pointed out that they sometimes have ugent work to be carried out adjacent to an apiary and that when such circumstances occur, the hives should be shifted out of harm's way until the job is completed. Operators are given instruction in the danger to bees, and may be wary of undertaking even hormone spraying—which does not normally cause hurt to bees—unless they can be assured all is well.

Mr Pearson paid tribute to the work of the Apiary Section of the Horticulture Division of the Department of Agriculture and to the field work of Mr T. Palmer-Jones and his associates in testing insecticides, and pointed out that he had never yet been able to first in bringing to their notice any major matter requiring attention. They were always a step ahead in information, and ready to offer advice.

HONEY PACKERS SECTION

On the Tuesday evening prior to Conference, thirty-five interested parties attended a special meeting convened by the N.B.A. to consider the possible formation of a Packer's Section within the Association.

Messrs Holt and Penrose were elected as delegates to represent the Honey packer's section to meet Executive and to formulate an acceptable Constitution, which would be for ratification at the next Conference proceedings.

MEETINGS OF EXECUTIVE

Prior to Conference, Executive met for the Monday evening and for the whole of Tuesday, being resumed after the Packer's evening meeting, until 1 a.m. to discuss and finalise the business arrangements for the open sessions, and to receive and discuss informally problems facing the industry with Departmental heads, and to have advance insight of the report to be made by the Chairman of the Honey Marketing Authority.

In particular, close attention was given to the proposed alterations to Rules and to completion of outstanding business.

Following the closure of Conference, a brief meeting of the newly elected Executive met, and included for the first time the new member for the South Island, Mr F. Bartrum.

Items dealt with included arrangements for the draft rules to be prepared for the newly formed Packer's Division of the N.B.A. and delegation of George Winslade to attend the meeting for the unification of Horticultural Bodies. At the same time, the opportunity will be taken to call and discuss the possibility of the implementation of Remit 9, in which Otago asked that Lincoln College be approached to include beekeeping machinery in their testing programme.

Because of the difficulties involved, the Royal Horticultural Society is also to be asked whether examinations could be held elsewhere than in Christchurch, which might be of advantage to both examiners and beekeepers sitting the N.D.A, Diploma.

A request had been received from the Southern District Road Safety Conference asking that apiarists refrain from keeping colonies in close proximity to highways and main roads in particular, suggesting that a reasonable distance would be 5-6 chains back. In some instances such a distance would be unreasonable and it can be envisaged that in places on the West Coast, for example, the proviso would necessitate hives being placed half way up a bluff. Apiary Instructors are to be asked to observe the situation and to report any incidence of obvious danger such as fast flowing traffic on a main road might incur if colonies were alongside a boundary fence.

Regrettably, the Far North Branch is to be disbanded due to the fact that the numerical membership does not justify continuation. Nevertheless, beekeepers in Northland will not be lost to the Association, since membership is to be transferred to Northland at Whangarei and some meetings will be at a 'half-way house' to suit both areas.

The next meeting of Executive is scheduled for late September in Wellington unless urgent business necessitates.



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tive or despondent note when reminiscing on such an enjoyable night's entertainment and lavish hospitality, but the thought must be expressed by way of encouragement to smaller branches.

Having seen just what can be done by a band of enthusiastic hosts who were able, by various means and the size of their branch, to raise considerable sums of money to pay for our evening's enjoyment, the smaller branch

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must not be discouraged or reticent that they may not be able to put on such a marvellous show as did Canterbury.

Grateful guests accept their host's hospitality for its sincerity and warmth of welcome, and a meal in a humble home can be enjoyed as much as a banquet in a baronial hall.

Branches must never vie with each other to 'keep up with the Jones's' or outdo the previous year's hosts, for beekeepers will enjoy themselves whereever they may be, no matter whether the branch is large or small.

PRESIDENT WHEELER'S Report to Conference

It is my privilege and pleasure to present to you the report upon the activities of your Association since the 1966 Conference at Whangarei.

It has not been a year of great activity, but as you listen to this report you will realise that the Associtiaon has been active in many fields and your Executive is doing its utmost to ensure that interest and development of the industry are furthered at every opportunity.

For most beekeepers the season has been a disappointing one with some hives having gathered little more than winter stores. The failure of clover to secrete nectar has again prompted remits and it is to be hoped that an answer can be found to this perplexing problem.

PRICES: Each sector of our industry, that is the producer, packer and even the retailer, are concerned to get a fair return for their work. All can help by ensuring that their business is run as economically and efficiently as possible. Some research has currently been undertaken into the costs of production, and it is proposed by Executive that this should be continued so that members can be given an indication of an average cost factor for the industry. This can then be used as a guide for them to measure their own results.

BURSARY: The first bursar selected under the Bursary Scheme, Mr Mervyn Cloake, has given generously of his time in attending field days and branch meetings to pass on the knowledge and experience he gained whilst in Canada. Later, during Conference, we will hear further from him. Full benefits from such a trip cannot, of course, be immediately assessed but Executive are satisfied that the scheme will be for the benefit of the industry as a whole and you will note from the accounts we have set aside \$20 to the Bursary Fund and now intend to rebuild it to such a level that it will be possible to send a further beekeeper overseas in the next two or three years.

JOURNAL: It is a pleasure to again commend the work of the Editor, Les Goss, and the four issues which have been produced have kept members fully informed of developments within the industry. However, like most business interests in this day we are faced with rising costs, and Executive reluctantly increased the magazine subscription to 10/- as from the August issue and the advertising rates by 25%. We must here record too, appreciation to the Honey Marketing Authority for continuing the agreement whereby two issues are paid for by the Authority.

EXECUTIVE MEETINGS: Since the Conference in Whangarei, Executive have met twice in Wellington, on October 13 and 14 and on March 8 and 9. I am indebted to members of Executive, on your behalf, for their attention to matters which have been brought forward and for their assistance at field days and branch meetings.

By the very full report which has appeared in the Journal after these meetings, all members have been kept informed of matters under consideration, and branch secretaries receive a summary of the meetings decisions shortly after each meeting.

FINANCE: It is most gratifying to all to note that the Association's finances again show a surplus of income over expenditure. We must bear in mind, however, that due to change in balance date and the arrangement with the Honey Marketing Authority, that the Association has in this financial period, borne the cost of only one issue of the Journal. For a normal period the excess which has been shown would have been halved, and consequently, there is no cause for relaxing our attention to the proposals for the Association's finances which were adopted

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by a Conference in Dunedin in 1965. It is fortunate that in the previous two years there has been no cause for Executive to hold any additional meetings, but should circumstances in the future require Executive to meet more frequently, the Association's finances would soon be reduced to the state which they were three years ago.

RESEARCH: Under the Hopkins Bequest, Mr Thawley is conducting a search into the composition of honey flowers at Cawthorn Institute in Nelson. From time to time he has requested samples of particular types of honey and I must thank those members of the Association who have come forward and made supplies available. In due course, the results of his research will be made available through the Journal to all members.

Mr Trevor Palmer-Jones and Mr Ivor Forster are reporting from time to time in the Journal upon the projects which they are working upon.

NECTAR SOURCES BULLETIN: I must record here appreciation to Mr R. S. Walsh of the Department of Agriculture, Auckland, for making available to the Association the material produced in "Nectar Sources Bulletin". This has been in steady demand by beekeepers. The cover for the bulletin was designed by a staff member of the Department in Wellington and I convey on your behalf our thanks to the Department for this co-operation.

DEPARTMENT OF AGRICULTURE: Throughout the year we have enjoyed the closest liaison with Mr Greig, Mr Smaellie and other Departmental Officers throughout New Zealand. I know it would be your wish that I place on record our appreciation too, for the work done by the part-time Apiary Instructors.

THE APIARIES' ACT 1965: Although the Amendment to the Apiaries' Act was fully discussed at the Conference in Whangarei, and the draft proposals had been considered by Executive, it was found when it was put into practice, that there was a serious weakness so far as the Statutory Declaration was concerned. This matter has been taken up with the Department and with the Minister of Agriculture, and I am pleased to advise that steps are being taken to introduce amending legislation as soon as possible. I am firmly convinced that B.L. in New Zealand can be virtually stamped out but the problem must be tackled in a methodical and determined manner.

Essentially, the Amendment to the Act requires beekeepers to inspect their hives at some time during the spring and to notify their Apiary Instructors the date of inspection and the details of any disease found. Treatment with drugs is certainly not the answer; neither is destroying by fire the whole answer but this new legislative approach compelling us to be methodical and determined could well prove to be the final necessary factor in beating this curse. Our tolerance in giving these new regulations a fair trial is needed now.

HONEY MARKETING AUTHORITY: Members of Executive have appreciated the close liaison which has been maintained with the Honey Marketing Authority.

It is a proposal of the Minister to alter the regulations governing the election of members to the Authority to provide that the returning officer shall, in future, be appointed by the National Beekeepers' Association. Inquiries are being made regarding the responsibilities and conditions relating to this appointment.

FOOD AND DRUG REGULATIONS: Representations have been made on behalf of the Association on the sections of Food and Drug Regulations relating to honey. There is no final decision as yet available but we have pressed for these to be referred to the Association before being put into force.

MASSEY UNIVERSITY MARKETING STUDY: The Association was unable to afford the cost of a full study on New Zealand honey marketing as proposed by Massey University, but a partial study has been sponsored by Arataki Apiaries to whom all members will be most grateful.

HORTICULTURAL BODIES UNIFICATION: Two meetings have been held during the year on this matter and it has now proceeded to the stage where the allied Horticulural Societies have set up a working committee to consider the education facilities available for students taking the various sections of the Diploma of Horticulture. Mr George Winslade has prepared some material so far as it effects the Diploma of Apiculture, and Executive will be further studying the matter.

OTHER ACTIVITIES: During the year beekeepers were asked to indicate an interest in the formation of a Queen Breeding Society, and although considerable attention was given to this project, insufficient support from members has regret-tably, made it impossible to proceed.

tably, made it impossible to proceed. Mr A. C. Ward of Waihi has continued as chairman of the Passion Vine Hopper Committee. His report will be placed before you during the Conference. We are all indebted to the committee and to Mr Ward in particular for the very diligent manner in which they are watching this matter.

PACKERS: Honey packers have expressed an interest in forming a packers' organisation within the structure of N.B.A. A meeting held recently to consider the matter will be reported upon later.

LIBRARIAN: Our librarian, Mr Dawson, has continued to maintain and add books to the library. Members are urged to make use of this asset and to bring it to the attention of the younger beekeepers for there is a wealth of knowledge and experience available to them through these books.

AGRICULTURAL CHEMICALS BOARD: The work of the Agricultural Chemicals Board is one which never receives a great deal of publicity. The interest of beekeepers has again been closley watched by Mr Tom Pearson. I must make reference to the visit to Australia, last year, by New Zealand

I must make reference to the visit to Australia, last year, by New Zealand beekeepers. There is no doubt that from this visit a lot of useful information and ideas have been exchanged with beekeepers in both countries, and this can only be for the ultimate benefit of the industry.

MEMBERSHIP: There has been a slight increase in membership during the year and this is most heartening, and I can only urge branch secretaries and officers to do their best to encourage beekeepers in their area to join in branch activities.

ASSOCIATION RULES: Executive will place before you at this Conference some Amendments to our present rules. It has been found that in many instances our rules could be improved so far as phrasing and practical application are concerned, and this is the purpose for these Amendments.

Finally, my sincere thanks to branch officers, members of Executive, our General Secretary and all other persons who have assisted me in any way throughout the year. Your willingness to help and advise has made my responsibilities a real pleasure.



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HONEY MARKETING AUTHORITY

Address by Mr J. FRASER, Chairman of the Authority

On behalf of the Authority, I would like to express our appreciation, of the opportunity given me as Chairman to address your Conference, and to thank your Executive and Branches throughout the country, for the co-operation we have received during the year.

It is now three years since the existing financial arrangements between the Authority and the N.B.A. were made, and we are aware of the very real efforts made by your Executive during that time to put the Association's finances on a better footing. We see no reason why the present arrangement should not continue.

I would like too, to take the opportunity of congratulating the Canterbury Branch on the energy and initiative they have shown in making the arrangements for this Conference and the promotion of New Zealand's first "Honey Queen." May their efforts meet with the success they deserve.

The Report and Accounts for the year ending August 31st, 1966 have already been circulated and I have no special comment to make on them.

This address, and the opportunity for questions you will have, is to inform you as fully as possible of conditions as they apply in the current season, which has again been one of varying fortunes for honey producers.

It seems to me that the problems facing us today are problems of production rather than marketing (and this is borne out by the nature of the remits on your order paper). If the difficulty experienced in so many areas in recent years in securing economic crops of honey is to continue, then the price of honey on the local market, which is of course our best market, must show a substantial rise. Responsibility of ensuring that this rise takes place with consequential benefits to producers does not rest with the Authority alone.

SUPPLIES AND CONDITIONS OF SUPPLY

The supply of honey to the Authority's depots as at June 30th, 1967 was 566 tons, a reduction of 501 tons on last year. This very low intake—the lowest in the last eight years—reflects the nature of the season. Apart from Mid-Canterbury and Marlborough below average crops were produced throughout the whole of the country.

A feature of the grading pattern this season was that honey received was either very light in colour or very dark. Honeys in the Extra Light Amber and Light Amber colour ranges were noticeably short in supply.

Conditions of supply were virtually unchanged from the previous season. The returnable container scheme introduced two years ago has proved of considerable benefit to those producers in the Waikato and Bay of Plenty arcas and a trend towards increasing use of 44 gallon drums by these producers is becoming apparent. While the benefits of these large containers accrue to producers it must be remembered that a major change over from one type of bulk container to another does not occur without large quantities of the discarded container being left on the Authority's hands for disposal outside the Industry at a considerable loss. This is a cost of the change over that must be accepted and shared by the users of the new containers in the hire charge.

PLANT

A unit for washing and drying bulk containers has been installed and is functioning satisfactorily.

LOCAL MARKET

The Authority has introduced two price rises during the past year. The first, in November, was to compensate for increases in packaging materials announced by the Carton and Canister Manufacturers. The second in April, to compensate for increased wages, distribution costs and outer packaging costs. It should be emphasised that these increases merely offset increased packing

costs and do not represent any increased return to the producer. Sales of the Authority's "Imperial Bee" and "Honeygold" brands in standard packs over the past 12 months show a reduction of 36 tons. "Imperial Bee"

32 tons from 185 to 153 "Honeygold"

4 tons from 134 to 130

Sales of honey under named floral sources in specialty packaging has increased by 49 tons from 35 to 84.

These figures do not include overseas 5-lb Gift Parcels.

The results of the Authority's policy in promoting the marketing of honey under named floral sources is now starting to emerge. Honeys which several years ago were regarded as problems honeys are now keenly sought after by discerning consumers who are prepared to pay premium prices for these packs. Not only do the suppliers of the Authority benefit from this policy but the whole image of honey is raised in the eyes of the consuming public.

Sales of bulk honey to manufacturers has increased by eight tons from 152 to 160.

SEALS LEVY

The latest figures sugest that overall local sales are continuing at approximately the same level as last year. This, together with the fact that the Authority's own sales are the same show that despite the poor season most packers have been able to obtain their requirements of honey. While our exports are greatly reduced, there should be no shortage of honey within New Zealand.

PROMOTION

The Authority has again applied its full advertising appropriation of over £5000 to promoting honey in general in preference to brand advertising. Costs of advertising are continually increasing and it is becoming necessary to apply more expenditure in this direction each year merely to obtain the same level of coverage. In addition to the main appropriation of £5000 the amount of £1000 held as a General Advertising Reserve has been made available in the form of a two-to-one subsidy to Branches of the N.B.A. for any expenditure on local promotional schemes. A number of Branches have taken advantage of this to participate in the National Honey Queen Contest. In addition, a special grant was made to the Canterbury Branch in recognition of the degree of self help they had shown in under-taking the promotion of this venture.

GIFT PARCEL SCHEME

This scheme has now built up to the stage where last year nearly 13 tons of honey (5700 x 5lb parcels) were handled. This is an increase of three tons or 870 parcels on the previous year. In addition to this the availability of the small speciality gift pack on the

local market complete with an overseas mailing outer has generated considerable interest in honey as an overseas gift item.

Both these schemes have proved to be a most valuable form of overseas promotion and have produced trade enquiries from all over the world.

As a result of the success of the Authority's Gift Parcel Scheme an Overseas Mail Order Scheme for 5lb tins is shortly to be introduced, initially in the United States and United Kingdom.

NIUE ISLAND

The industry will now be well aware of the formation of the Niue Honey Co. Ltd, as a joint venture between Mr J. B. Macissack of Waitoa and the Department of Island Territories. Indications are that production from Niue Island could easily surpass the estimates made from a preliminary survey by the Department of Agriculture and that a considerable quantity of honey could enter New Zealand from this territory.

While in the foreseeable future this honey will come to the Authority, it does in fact represent an import of honey into this country, even if from one of our Island Territories, and the Authority has given consideration to this aspect.

The situation with regard to another New Zealand beekeeper who is establishing himself in Fiji is quite different. Honey produced from this venture would not have free right of entry. If this honey was to be sent to New Zealand it would have to observe the same formalities as honey from any other country such as quarantine regulations, import licences and availability of overseas exchange.

OVERSEAS MARKETING

The quantity of bulk honey available for export has naturally been small in view of two below average seasons followed by what can only be described as a disastrous season.

Prices for our bulk overseas sales have been maintained at a high level, but some of the returns obtained, especially in respect of the amber honeys, must be regarded as inflated because of the token quantities available. These prices could not be considered as a guide as to what the returns would be if say a hundred tons of that grade were placed on the market.

I do not intend to make a detailed survey of the overseas market as I assume and hope that you will have read the article in the May "Beekeeper" on overseas marketing. This analysis of our traditional system of exporting bulk lines points out the very favourable position we have attained in a highly competitive field. Nevertheless, with all our advantages, of quality, grading system, and so on, and although our honeys are sold at premium prices, it does seem unlikely that any increase in return to producers can be expected while all our costs remain at present levels, and the Authority is well aware that such an increase may be necessary to ensure the continued economic well-being of the industry in the country.

The alternative is to dispose of our marketable surpluses in retail packs, and the manager has dearly outlined the relevant argument for and against this policy. He concludes his article by saying "no recommendations for changes in export marketing policy are made. That is not my function."

It is, however, the function of members of the Authority, and you may reasonably expect some expression of my views on the subject.

At the present time, we are on top of the heap—with all the difficulties of irregularity of supply and of quality (and it should be remembered that we can only sell what producers choose to give us) we have maintained, over many years, a leading position in the world market.

From the producers' point of view, that may not be good enough ,but I do not think we should jump off that heap until we know exactly where we are going to land. We are not entitled to gamble with your honey and your future.

The Authority has been considering the alternatives, and will continue to do so, and has in fact taken steps to explore fully the opportunities open to us. At this stage it would not be helpful to anyone for me to say more.

In conclusion I would like to say again that our problems are not ones of marketing alone, but of production.

If factors other than variation of seasonal conditions are entering into the picture, we should know what they are, and some attempt should be made to assess their effect on our future production.

Such factors as the elimination of spring sources of nectar and pollen in the course of land development, the effect of weedicides and pesticides, are too important to ignore. These matters are properly the concern of your Executive and the advisory and research facilities available to us, but I would stress are just as important to your marketing organisation as to the producer.

In the meantime and lacking the crystal ball in which our future may be seen, I may fairly claim that within the limits imposed upon it the Authority continues to carry out its primary function; the creation of stability, and providing the producer with satisfactory alternative outlets.

The organisation we have is good-let us all work to make it better.

ADDRESS BY MR A. M. W. GREIG DIRECTOR, HORTICULTURAL DIVISION TO CONFERENCE

Introduction

I am pleased that we are able to meet once more during your Annual Conference. I must say how much last year I regretted being out of New Zealand when your Conference was held in Northland where over 30 years ago I spent eight years on the land at Kerikeri as a citrus and subtropical fruitgrower. That experience has been an invaluable background to my service with the Department of Agriculture.

Standards

However, whilst overseas in May last year I was co-opted by Government to attend a meeting in Vienna on honey standards. You may wonder whether this subject is significant to beekeepers or to New Zealand but in these days of increased economic and marketing difficulty for this country, I suggest that we all have an increasing responsibility with such subjects as standards and quarantine, because these aspects are, or can be, hidden trade barriers. The purpose behind quarantine or standards may be to facilitate world trade but they can operate in the opposite direction unless they are framed along realistice lines. In general, the European region has been in the forefront of several organisations and although the initial drafts are often only for products grown in Europe and moving in trade between the countries of Europe such a draft may become a standard and be put into operation by individual countries or by a group of countries such as the E.E.C. and applied to the product of a non-European country which is shipping to the European region. The United Kingdom is closely associated with these European standards and whether she joins the E.E.C. or not she may adopt the European standard for a product such as honey and this could be applied upon entry into the United Kingdom. As an observer, I attended this Vienna meeting under the auspices of the Food and Agriculture Organisation and World Health Organisation from 24-26 May 1966 when representatives of 16 European countries were present.

New Zealand's attitude to the European standard for honey had been drafted by the Department of Agriculture and then checked and approved by the Honey Marketing Authority before it left New Zealand, but it was desirable to re-emphasise certain points in person and I took the opportunity to state that New Zealand produced and exported a very high grade of honey which is demonstrated by the premium it usually commands when offered for sale in competition with honey from other countries. New Zealand is therefore supporting a world wide standard because the trade in honey is not confined to a particular region, such as Europe, and non-European countries find it difficult if not impossible, to play an adequate part in the drafting of a regional standard when we do not geographically belong to that particular region. The standards finally adopted for the European region could affect New Zealand honey exports to the region and also your livelihood as commercial beekeepers. Because honey is produced under varying ecological conditions around the world it is extremely difficult to draft a realistic standard when it is clear that even for moisture content there maybe as great a difference as 4 per cent maximum moisture in one class of honey—such as white clover.

The most disturbing aspect, however, is the continued inclusion of a test, known as the diastase test, H.M.F. or hydroxymethyl-furfural test which is alleged to determine whether a honey has been over-heated or not. If this

test forms a part of the final standard some high quality New Zealand honey may be down graded to a baking grade with a consequential low financial return. This would be an unrealistic procedure which would undermine confidence in standards. Beekeepers however must continue to exercise the greatest care in handling honey to ensure that when heat has to be applied the honey is never heated to an extent that any colour points are lost, and New Zealand must continue to play an adequate role in the drafting of any standard which may be applied to a New Zealand product.

Quarantine

During the past year or two a number of countries have been making enquiries in regard to quarantine aspects of bee management and their relationship to honey. These countries have asked about the existence or incidence of brood disease *Bacillus larvae* in New Zealand and whether we can certify that any part of New Zealand is free from this disease. These enquiries even come from regions where this bee disease occurs. We have replied that the Apiaries Act 1927 and Regulations thereunder make it mandatory for all apiaries to be registered, and for every beekeeper to maintain healthy stocks of bees. The primary responsibility for detection and control of bee disease rests with the beekeeper himself; apiaries are subject to regular inspection and diseased hives are burnt.

Two aspects, however, continue to concern me. One is that on detecting a bee disease in hives beekeepers may be tempted to salvage some honey before destroying those hives. The other is that there may be beekeepers who believe they are being clever if they can smuggle bees into this country. If there are such beekeepers let me emphasise that they are doing this country and their fellow beekeepers a disservice which could not only increase problems in production but could also jeopardise our trade in high quality export honey.

Bacillus Larvae

Following amendments to the Apiaries Act in 1965 the new procedure on identification and action in regard to this disease commenced late last spring. It was regrettable that final instructions did not go out to Apiary Instructors until November 2, 1966 and therefore some beekeepers may have had inadequate notice of changes in procedure.

It would be fair to say, however, that it is not practicable for every requirement in a new procedure to be submitted to your Executive or to the industry before it goes into operation but I would remind Conference that most of the changes originated with the comprehensive review of this disease held on October 16/17, 1961 when the Executive of the N.B.A. and departmental staff jointly discussed this whole problem, and made some specific recommendations which were presented to the industry through "The New Zealand Beekeeper" in May 1962.

Unfortunately, rather a long period of time elapsed before these recommendations resulted in a change in the law and changes in administration. The only aspect which appears to have caused concern to us all has been the "statutory declaration" which was not sponsored by the joint meeting of 1961. Steps have been taken to have this particular requirement reviewed, if not rescinded. The co-operation of the industry and by individual beekeepers was very good and beekeepers notified the department of 242 diseased apiaries and 393 colonies, which is evidence that beekeepers had taken their responsibilities seriously and reported 89 more diseased apiaries and 195 more diseased colonies than in the previous year. The overall position for last season is that by check inspections of 3,852 apiaries—186 were found diseased and this figure is a reduction on the number found by inspectors the previous season.

Use of "Anti-Biotics" to Control Bee Diseases

What steps is the Department prepared to take to prevent the use of antibiotics for control of bee diseases?

BEESWAX

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At the time this Journal went to Press we were paying:

60 cents per pound for light, clean Beeswax

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NORTH ISLAND BEEKEEPERS-

not close enough to Auckland to use our "Depot" service should send their wax by direct ship to Lyttelton or by Rail/Sea/Rail. In any event be sure to endorse the consignment or shipping note with the gross weight and correct cubic measurement which, for well packed wax, can be calculated at 1 cubic foot per 50 lbs. weight.

EVERYBODY-

Scratch your initials on a top block in every package to facilitate easy identifiaction.

PROMPT PAYMENT

We make every effort to make prompt payment for wax and if you require this DO NOT send your wax freight forward as it sometimes takes two to three weeks for the freight charges to come in and this will delay your cheque accordingly.

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Send your Beeswax now, for conversion to Comb Foundation for next season's use, with your wax for sale. Please advise when you require delivery.



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First of all I refer again to the meeting of October 16/17, 1961 and the fact that a report on this meeting was published in "The New Zealand Beekeeper" in May 1962. In this report the Executive of the N.B.A. and Horticulture Division was unanimous that the drug Sulphathiazole had no place in efficient beekeeping and recommended that the Apiaries Act be amended specifically prohibiting the use of this drug for checking the spread of *Bacillus larvae*. When the 1965 Amendment to the Apiaries Act was being considered it was recommended that a clause be included to prohibit the use of antibiotics in bee management, but this proposal was dropped because its inclusion would necessitate the drafting of a new Act to replace the Apiaries Act, now 40 years old. As the proposed Amendments in relation to *Bacillus larvae* were urgent it was decided to proceed only with them at that time.

Apart from the fact that Apiary Instructors as advisers, and beekeepers as producers, should be aware that the Department discourages the use of antibiotic drugs and that their use is not included in the B.L. control programme, there are provisions in the Poisons Act, administered by the Health Department in regard to sulphonamides, including sulphathiazole. This is a declared prescription poison. Similarly, the antibiotic—terramycin—is put into a similar class and declared a restricted drug under the Food and Drugs Regulations. Legitimate use of these substances—with few exceptions—is limited to prescriptions from medical practitioners, dentists, and veterinary surgeons. The improper use of these substances is regarded so seriously, that if a person is in possession of any of them the onus of proving that he has properly and legitimately acquired them, rests on the person having them, and if he cannot prove this he is liable to a fine of up to £200.

If anyone has reason to suspect the illegal use of these substances it should be drawn to the attention of the local Health Inspector. In a recent instance of this nature I understand that suspect samples have been obtained and are at present being analysed.

In its own interests the beekeeping industry should be doing everything it can to eliminate the use of these substances which have no place in the management of bees in this country.

Staffing of Apiary Section

I know you will be pleased to hear that the Apiary Section is now at the full approved establishment of 15 officers. Two field vacancies as Apiary Instructors at Auckland and Palmerston North have been filled by Messrs K. N. Bates and D. J. Scott. Two new advisory positions as Apicultural Advisory Officers have been established and are held by Messrs R. S. Walsh (formerly Apiculturist) and G. M. Walton who is overseas at the University of Guelph, Canada. These two positions have been established on a similar concept to the positions of Farm Advisory Officer or Horticultural Advisory Officer and the persons concerned will undertake full time advisory duties with a coverage beyond the apiary district within which they may be stationed.

Beekeeping and Production

As at May 31, 1967 there were 3,505 registered beekeepers who pwned 12,770 apiaries and 194,213 hives. In the commercial group with 251 hives and over, the number of beekeepers was static compared with two years ago but the hives owned by this group has increased by four per cent in this short interval. This was mainly due to hives being purchased from domestic or semicommercial beekeepers whose numbers have fallen in the same period.

The honey produced for the season ended May 31 was assessed at 4,570 tons or 14 per cent lower than the average of 5,321 tons for the past six seasons. In fact, the season 1966/67 was one of the lowest production years during the past decade. May I conclude by wishing you all a better season for 1967-68.

THE HONEY BEE COLONY

By V. A. COOK, Apiary Instructor, Oamaru.

This article is based on an illustrated address by the author at the Beekeepers' Symposium at Timaru and at the Otago and Southland Beekeepers' Convention.

Introduction

The drive for greater agricultural production is making it necessary for all types of farmers, including beekeepers, to gain a better understanding of the particular stock with which they are dealing.

It is unfortunate that those who study the honey bee colony are faced with complexities not associated with the study of other forms of livestock. A sheep for example, is a comparatively straightforward creature to study;

A sheep for example, is a comparatively straightforward creature to study; it is docile, relatively large which makes it easy to observe, it can be kept under the farmer's control at all times and it is an entity in itself.

By comparison, the honey bee colony is extremely complex. The entire colony comprising many thousands of individuals is the entity, the unit of production. The members of the colony are very small and therefore difficult to observe. When a bee flies from its hive it becomes a wild creature beyond the control of its owner. The beekeeper has only partial control over the food supply of his bees in relation to output; his measure of success is almost entirely dependent upon the efforts of his bees. And of course, bees sting!

However, in spite of the difficulties involved, our knowledge of the honey bee colony has increased considerably over the past 25 years. My purpose here is to condense present knowledge on various aspects of bee behaviour into a concise account of the colony as an organised social unit.

Successful organisation of the honey bee colony depends mainly upon three aspects of bee behaviour which are very closely inter-related, and which largely govern the pattern of all other types of behaviour. These are division of labour, production and distribution of queen substance and food sharing.

Division of Labour

Efficient division of labour within the colony is obviously essential. It was perhaps a fault of early naturalists to think of many living creatures in anthropological terms. This attitude logically led to the erroneous idea that the queen bee directs her subjects to their various duties. She was in fact regarded as "king." Shakespeare (Henry V) tells us, "They (the bees) have a king and officers of sorts . . .," and then continues with his lucid and beautifully descriptive account of the activities of the colony.

It was not until the mid-19th Century that Donhoff (see Ribbands 1953) demonstrated that, in general, younger bees are employed in the hive while their older sisters toil in the fields.

Later Gerstung, Rosch and others (see Ribbands 1953) carried out work which led to the idea of a strict relationship between age and occupation. According to this idea each worker bee performs, for the first three weeks of life, a strict programme of work involving all the duties of the colony. Each job is performed according to the bee's age, which in turn controls her stage of glandular development. When three weeks old the bee becomes a forager.

The first three days are said to be spent cleaning cells. Nursing duties commence with the feeding of older larvae. During these early days the young bee consumes considerable quantities of pollen which causes the broodfood glands in her head to develop. Young larvae can now be fed and

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Fig. 1. The secretion of the mandibular glands of the queen plays a vital role in the organisation of the colony.

this activity is pursued for some six days. The first orientation flight is taken at the end of this period. By this time the wax glands have become active, enabling comb building to be undertaken. Then for five or six days the bee cleans the hive, ripens nectar, packs pollen and carries dead bees from the hive. With the poison glands of her sting now at full maturity the bee is able to spend a couple of days guarding the hive prior to becoming a field worker.

The first foraging trip is almost certainly stimulated by the dancing of successful foragers. The dance "language" of bees which serves to direct other bees to a source of food need not be discussed in detail here. Suffice it to say that a dancing bee is able to indicate to other bees the distance and direction of a food source. By sharing her booty with prospective foragers she is able to impart to them its flavour and quality.

Recent work by Lindauer (1961) who carefully observed individually marked bees in special observation hives, has dispelled the idea of a rigid sequence of duties. For example his now famous bee "No. 107," which was observed for 177 hours, spent 56 hours patrolling the combs and 69 hours 53 minutes resting. At eight days old this bee would have been expected only to feed young larvae. In fact she capped cells, cleaned cells, fed young larvae, fed old larvae, built comb, eat pollen, patrolled combs and rested.

It is now known that glandular development is not dictated entirely by age. Colonies containing all old bees or all young bees are found, after a short period of adjustment, to function normally.

Lindauer (1952) found bees in which both the wax glands and brood-food glands were developed simultaneously.

What is the role of the patrolling and resting bees? According to Lindauer (1961) the patrolling bees are simply looking for work; they undertake any job that needs to be done provided they are physiologically suited to do it.

The resting bees play a dual role. Firstly, they help to regulate temperatures and secondly they form a large reserve labour force which can be brought into action at a moment's notice.

Although much remains to be learnt about the division of labour amongst honey bees, it is now obvious that the high degree of efficiency achieved is due to a flexible system rather than a rigid one.

Production and Distribution of Queen Substance

The importance of the queen bee through her immense egg laying capacity is obvious to any beekeeper. Her vital contribution to the organisation of the colony has only recently become appreciated.

When a queen is taken from a hive the bees quickly appear to be upset; they miss her. The fanning, "roaring" and generally disorganised behaviour associated with queenlessness indicates that the queen has a big influence on the unity of the whole colony.

How then do bees recognise the presence of their queen? The idea of a distinct odour has been disproved. The real answer was found by Butler (1954) when he discovered queen substance. It had long been accepted that worker bees lick their queen to keep her clean. Butler noticed that bees forming the queen's "court" constantly change places with other bees in the hive, and that bees which have licked the queen quickly feed other bees. This observation suggested that the bees obtain some substance from the queen. The food sharing habit (which is discussed in more detail later) would ensure that any substance taken from the queen would be shared among all the members of the community. This theory was finally proved.

Queen substance, a secretion of the mandibular glands of queen bees (which they spread over their bodies with their legs) is very attractive to workers. It is licked from the queen by a few bees and circulated among the bees of the colony in regurgitated food.

Callow et al. (1964) have shown that queen substance is of very comlex composition. Fourteen substances have been identified in extracts of the heads of queen bees, all of which are probably producd in the mandibular glands.

Butler and Elaine Fairey (1964) found that one of these substances prevents worker bees from rearing queens and inhibits the development of their ovaries. A second substance was found to be a drone attractant and a third was shown to be responsible for stabilizing swarm cluster.

It can be expected that continued reearch on queen substance will lead to great advances in swarm control, queen rearing, queen introduction and controlled mating of bees.

Food Sharing

The extent of food sharing in the honey bee colony was demonstrated by Nixon and Ribbands (1952) who induced six bees to convey to their hive 20 cubic millimetres of sugar syrup containing radioactive phosphorous. Seventysix per cent of the foragers and from 43 per cent to 60 per cent of all the bees were radioactive within 27 hours. The wings and legs of radioactive bees were not radioactive, so external contamination could not have contributed to the result. It can be concluded that food taken into the hive is quickly shared among the whole community.

Food sharing is essential in the process of converting nectar into honey. Nectar brought into the tive by foragers is passed to "household bees" which regurgitate tiny nectar droplets and hold them exposed to the drying atmosphere of the hive to reduce the water content. The partly processed nectar is passed on to other bees which continue with the task. Final ripening takes place in the cells of the combs.

The importance of food sharing to the distribution of queen substance, and therefore to the cohesion of the colony, has been emphasised. It has been mentioned that food sharing helps dancing bees impart full knowledge of the type and quality of a food source.

Food sharing also has some effect on division of labour. The continuous circulation of food within the colony makes the bees aware of the type and amount of food being brought into the hive. This may well affect the whole tenor of the colony and may act as a stimulus to individual bees to undertake certain duties. For example Free (1965) showed that when colonies are fed sugar syrup they collect more pollen than other colonies in the same apiary which are not fed. This is because the bees which take the syrup from the feeder are household bees which normally take nectar from incoming foragers. Returning nectar gatherers, unable to get rid of their nectar loads, switch to pollen gathering.

Temperature regulation behaviour is also influenced by food sharing. If the temperature within the hive becomes a little too warm the bees cool by fanning. If, in spite of fanning, the temperature remains above 95 deg. F. the principal of water evaporation has to be resorted to. Drops of water are deposited at the entrances of brood cells and large numbers of bees hang over the brood exposing droplets of water between their heads and proboscises. Lindauer (1961) illustrated the efficiency of this method by exposing a hive to a direct sunlight temperature of 158 deg. F. on a larva field in Southern Italy. He found that while ample water was provided near the hive the broodnest temperature remained at 95 deg. F.

The water cooling process involves a very high level of social behaviour. It must be remembered that only bees which have learned the location of the hive can leave it to collect water, which necessitates a strict division of labour between "water gatherers" and "water sprinklers."



Fig. 2. Many bee activities depend upon the food sharing habit. AUGUST, 1967 Dt pays to brand 'em

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ABBOTI

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N.Z. BEEKEEPER

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P. G. COLLINGS

It is in fact the young bees which take nectar for foragers that start the cooling process by evaporating water from the watery nectar in their honey sacs. They then beg from incoming foragers low quality food, that is nectar high in water content; they reject nectar of high sugar content. By this means foragers are induced to progressively collect nectar with greater water content and quite quickly they switch to gathering water. When the temperature returns to normal the "water sprinklers" beg once more for sweet food and the foragers return to normal.

Food sharing, the begging and transmission of food, is of vital importance. The constant circulation of food is as important to the honey bee colony as blood circulation is to the human body.

Conclusion

While it is true that our knowledge of the bee colony is fast increasing, it must be remembered that many bee activities remain shrouded in mystery.

Scientists engaged on pure research into bee behaviour usually concentrate their attentions on specific problems which tends to make the various aspects of behaviour appear segregated when in fact they are closely integrated.

Results of research work must therefore be continually reviewed and fresh knowledge fitted into the overall pattern of bee behaviour to ensure greater understanding of the honey bee colony as a social unit.

It is also important that the findings of the scientists are regularly sifted for any knowledge which may prove to be of direct benefit to the practical beekeeper.

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ters to the

Correspondence on any subject of interest to beekeepers is cordially invited. Publication does not necessarily imply agreement with the views expressed.

> July 7, 1967. 21 Seacliffe Ave., Belmont, Takapuna.

APIARIES AMENDMENT ACT APPENDIX I

Sir,

I have to thank you for your explanatory footnote to my letter which appeared in your last issue on the above subject.

This confirms my assertion that the legislation never originated from remits from branches of the Association, nor was there any resolution supporting such legislation passed at an annual conference.

The Apiary Superintendent was given the task of advising Conference of the intended legislation, which already had been approved of by a supine Executive without authority from the Industry.

Worse still, what eventually was inflicted on the Industry, proved to be even more drastic than conference delegates had been led to anticipate. For instance the threat of a £50 penalty for those who fail to comply with an utterly impractical regulation surely represents the essence of stupidity by those in Authority. Now we find the Executive making a belated attempt to have the act

modified in an effort to appease growing resentment from the Industry.

Acording to 1965 official figures there are 4,613 registered beekeepers in New Zealand. I leave to the imagination of readers the extent of clerical work required from the Apiary staff in the handling of the 4,613 forms sent out to beekeepers, and the amount of correspondence entailed with those who fail to fill in the required information.

It is obvious that the Apiary staff's former responsibilities in the field, which met with such general satisfaction is now superceded by the office work involved in the administration of legislation of very questionable value. It seems to me the Minister has been badly advised on this matter and

It seems to me the Minister has been badly advised on this matter and when he becomes conversant with the facts, he may have some caustic comments to make to those who officially advocated the enactment of legislation that has aroused considerable criticism from the Industry.

WALLACE NELSON.

Upper Hutt 25th July, 1967

THAT ACCOUNTING!

Sir,

I am pleased in deed that Mr Bob Davidson concedes some benefits are to be gained from consulting my fellow practitioners. I must point out however that these benefits can be in a far wider field than death duties and taxation.

All commercial beekeepers will be only too well aware that to be successful today requires prudent planning and a constant reassessment of the techniques being used. Greater reliance is being placed on reesarch information and on new developments in equipment. It is equally important that changes in matters financial be taken into consideration if the maximum benefit is to be gained.

Accountants have a reputation for being conservative in their financial advice to clients. It is only advice that they are able to give—the end decision is the client's.

You will note that I leave alone Mr Davidson's comments regarding "profits", "actual profits" and "earnings" for space would not be available to enter into a treatise upon these terms.

KEITH MOODY, General Secretary.

N.Z. BEEKEEPER

40 Signal Hill Road, Opoho, Dunedin. 7th June, 1967.

Sir,-

Referring to the note on Dr Mary Burrey of Edinburgh, and Ron Newton of Ashburton, both concerned with Eczema in the May issue.

I have been a hobbyist keekceper continuously since 1921. In 1944 I developed a very severe dermatitis. Only my hands were affected, the lines on the palms opening into deep cracks. It was horribly painful and maddenly itchy. The condition lasted for more than three years during which time I had treatment from several G.P.s and finally from a Dunedin skin specialist. They were all unanimous that it was an allergy but could not trace its cause. I was subjected to all the usual treatments — ointments, lotions, Stockholm Tar, even the removal of a lovely set of sound upper teeth; but nothing did any good to speak of. In fact, the dental surgery caused it to flare up worse than ever.

That it had something to do with the bees, I discovered accidentally one season when I had no harvest owing to an outbreak of B.L. disease. Now I use gloves whenever I handle bee frames and am free from the trouble. At that time I gave credit for the cure to a "Patent Medicine" treatment I tried in desperation, and it certainly helped a great deal to alleviate the discomfort and pain.

The slightest smear of propolis when removing gloves triggers off the fiery itch, but now it does not spread to any extent and quickly clears up.

ARTHUR J. SHAW

WALLACEVILLE EXAMINES BEES For Nosema

If you suspect that the bees in some of your hives are infected with Nosema, you should contact your local Apiary Instructor, who will arrange to send samples to Wallaceville, for examination. If you cannot contact your instructor, you may submit samples yourself, but you should advise him of your action.

How to Collect Samples

Twenty-five-thirty live bees should be collected from the alighting board of each affected hive and placed in a queen cage supplied with queen candy. If the bees are not flying when you wish to take samples, they can be collected from the frames, but if you do this, choose older bees, because they are most likely to show spores on examination. If all the bees in a hive have died, then send 25-30 dead ones.

AUGUST, 1967

Each cage should be marked "For Nosema Examination", and have your name, address and a code letter or number clearly printed on it, so that you can identify the hive from which the bees were taken.

Where to Send Samples

Address samples to:

Apiculture Section,

Wallaceville Animal Research Centre, Private Bag, Wellington

Mark the package **Live Bees—Urgent**' Send by airmail if this is quicker.

Examination Report

A report will be sent to you (and your local Apiary Instructor) when the examination of your samples has been completed.

BRANCH NOTES



OTAGO

South Island beekeepers once again gathered in Dunedin on the Tuesday after Queen's Birthday Weekend for the Annual Convention.

The afternoon was taken up by three speakers, Mr Glyn on N.B.A. matters, Mr J. Fraser H.M.A. and Mr M. Cloake who gave a talk on a particular queen raising plan.

The evening hours were filled with an instructive series of slides and talks by Apiary Instructors from Gore and Oamaru and by Mr M. Cloake.

Convention ended with a pleasant social gathering and supper. Reported by M. J. Heinemann.

WEST COAST

At the annual meeting held on May 5th, John Glasson of Blackball was elected President and Tom Holland reelected Secretary. The former President Rod Buchanan did not seek re-election. The Honey Queen to represent West Coast at the Honey Queen contest was chosen at this meeting. Our candidate, Miss Bernadette Seal, is a daughter of Mr and Mrs D. Seal of Greymouth. Mr Seal was a former

Apiary Instructor. At a special meeting held on May 26th, local beekeepers had the pleasure of hearing Mr Mervyn Cloake give a talk on his experiences while in Canada, illustrated by slides. We also had the pleasure of a visit from our Honey Queen, Miss Seal, and from Mr and Mrs H. Cloake at this meeting.

On June 23 we discussed remits for Conference, and after these had been dealt with Mr Paul Marshall the Apiary Instructor for the district gave a talk on the economics of beekeeping on the West Coast. He put a considerable amount of time and thought into the preparation of his talk which beekeepers followed with interest, creating much discussion.

With the mild weather and the number of sunny days during the last two or three months, stores on the hives are getting low and the position should be watched.

It would appear that price guides put out by the H.M.A. and N.B.A. are not being adhered to, as first grade honey is available in West Coast retail stores at 2/- and 2/3 per lb carton.

Reported by R. V. Glasson.

WAIKATO

At a meeting on July 7, Mr Albert Pearson was elected a Life Member of this Branch. The Pearson's family has been associated with beekeeping in Hamilton since the very early days, and Mr Albert Pearson has been a staunch Branch Member all his life. Reported by H. N. Tuck.

SOUTHLAND

Branch activities have been quiet for the last few months, our last meeting being the annual meeting but we will get moving again now that spring is just around the corner.

We are hoping for a better season than the last which was one of the worst in the history of beekeeping in this area.

There is to be a meeting during the latter part of August to make arrangement for a field day to be

N.Z. BEEKEEPER

held during early October. Members and visitors will be notified beforehand.

The winter has been good so far, and in June we had only 3 ins of rain. That is why they call it "the winterles north!"

Branch members are very grateful to Mr Bob Walsh for the fine book he has compiled on Pollen and Nectar sources—a booklet worth having.

Members in this area are working getting their supers painted and frames ready for the coming honey flow. Nothing like being prepared!

Reported by Arthur G. Tucker.

END DF AN ERA By JIM BARBER

To many beekeepers, and to old timers in particular, the writings of Isaac Hopkins are familiar. Equipment recommended by him has been in use right until the present day, and some items would be museum pieces had we an industrial museum for oldtime equipment.

Thus it was almost with a feeling of guilt that I dismantled the old ripening tanks, an illustration of which is common in Hopkins' books on Australasian beekeeping. Norman Tuck looked at these when he was at my place, and his comment was apt. "If only they could talk," he said, "they certainly would have interesting tales to tell." The tanks were given to me by an old friend and Boer and Great War veteran, Ned Goodall, who ran an apiary at Mangere.

Now these tanks raise an interesting question on weather conditions prevailing in the Waikato. Mr Hopkins recommendation was to spread the honey out in a thin layer to assist in the ripening process, and an old-time beekeeper told me how the custom used to be to spread two pound tins with the lids off, all over the honey house floor, for this purpose. We all know today that the obvious result would be thinning of the surface and the absorbtion of moisture. Has,

AUGUST, 1967

HAWKES BAY

At the well-attended Annual General Meeting on 22nd May, 1967, there were a number of new faces, augering well for the future of the branch.

General Business was followed by a supper break, after which a series of instructive and interesting slides were shown by S. F. Line, our local Apiary Instructor.

Officers elected for the forthcoming year were — President, Mr I. Berry; vice-president, Mr A. Watts; secretarytreasurer, Mr R. Morse.

Reported by Mrs F. Maultsaid.

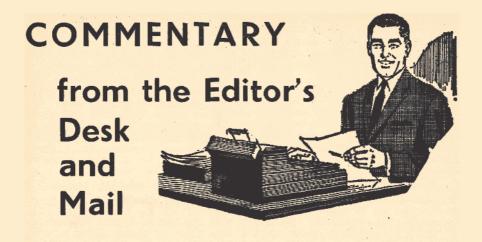
then, the climate altered so much, or were these old timers acting in error. They were intelligent and careful men, so that is unlikely they acted wrongly.

The ripening tanks are quite different from modern construction, for they are wooden lined with strong and splendid kauri timber. I lent them to a beginner, and when he returned them — as they do take up room — I propped them up outside against a shed with the result that the tinned steel has all rusted away. I feel I owe the industry an apology. Another item from Hopkins' times

Another item from Hopkins' times was a hive assembly clamp. Mr Bert Davies told me he had one too, and these were the only specimens he had seen. The clamp was still a most convenient and useful item, but borer destroyed the timber because parts of it were white pine.

it were white pine. Other items that have lasted many years are kauri supers, rabetted on all edges to fit together, with rabbetted lids. All these interesting items from the past are reaching a stage of extinction.

The men, too, are passing from us. Recently, Monty Wedde of Katieke passed away. We have with us such men as Ernest Sage, Bill Bray, Allen Bates, Albert Pearson and his brother Tom, both of whom still manage to look too youthful to be recognised as old timers. They are all absorbingly interesting to talk to, and it would be wonderful if they could be persuaded to put their experiences on paper for us. This is difficult to achieve, although it is easy to engage them in discussion.



CANTERBURY BEEKEEPERS Bray & Gossett were quick off the mark to obtain wide publicity at the World Ploughing Championships by presenting to each competitor a gift of honey. Each jar had a card carrying the inscription "With the compliments of Bray & Gossett Ltd., Leeston, New Zealand. Airborne White Honey." As to whether any of the gifts arrived intact overseas is not known and would be dependent upon a number of factors including the recipients restraint and the agricultural authorities at ports of entry, but the idea was excellent commendable enterprise.

A FOREST BLAZE costing £7500 in Nairobi has been blamed on a honey hunter smoking out wild bees.

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A RESEARCH TEAM at the Pavlov Institute, Koltushi, Leningrad, is carrying the pioneer work of von Frisch further by studying the reaction of bee colonies to a plastic robot controlled electronically within the hive. Whilst the man made creation cannot fly it can be made to buzz and to dance on the alighting board. The hope is that the dance can be so simulated that other workers will be persuaded to forage to given locations, thus breaking down the little understood code used when a highly productive source of nectar has been located. If the object can be achieved, it is feasible that colonies could be "directed" to work given areas required by the apiarist.

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THE UNIVERSITY OF GUELPH, Ontario, Canada, is attempting to develop a new breed of bee as its Centennial project. Four types have been imported in immature form from Europe, and most promise seems to centre round a Carpathian strain from Turkey. Mode of transportation for eggs and larvae is interesting, in that success was achieved by a courier in carrying them strapped to his waist in a canvas belt, thus maintaining an even body temperature throughout the journey. Earlier atempts using thermos jugs and moist towels and portable incubators had failed. Present strains of Canadian bees are mostly Italian.

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HONEY TIMES is the title of a new publication distributed by the Australian Honey Board. News of Australian sales promotions at home and overseas cannot help but encourage producers and merchants to become publicity conscious and "get with it."

THE LONG AWAITED "Nectar and Pollen Sources of New Zealand", by R. S. Walsh, Apiculturist, Department of Agriculture, Auckland, has been published by the National Beekeepers' Association and copies distributed to association secretaries for sale to members. It is a source of detailed information and a copy should be on the bookshelf of every beekeeper.

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A COPY OF "N.Z. HONEYBEE", published in July 1938, makes interesting reading for apart from the instructional articles, the classified ads tell their own tale. Under the pseudonym of "Success" one advertiser seeks a cadet for whom no premium would be required, but who would have to provide his own keep. Another offers a 35-hive apiary on two borough 14 acre sections, steam bailer, extractor and shed. Average yield two tons per annum, for ± 290 cash! Incidentally, the classified rates were then 10/- per inch, which would indicate that our present charges are very low indeed.

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IN GREAT BRITAIN a new order permits European brood disease to be treated with antibiotics in place of destruction by fire, but destruction for Bacillus Larvae is still obligatory. Treatment will be at the option of the beekeeper and will be carried out free of charge by an officer of the Ministry of Agri-culture. Advice will be given as to whether destruction is recommended in the case of heavy infestation, or treatment for lightly infected colonies. No honey may be taken from hives during the eight weeks following antibiotic treatment. It is hoped that free treatment will encourage beekeepers to report disease incidence immediately it is found. Π π

A USEFUL BOOK for beekeepers interested in simple explanation of botanical names and terms, should purchase "Botanical Names and Terms" by G. F. Zimmer, published by Routledge & Kegan Paul Ltd., 68-74 Carter Lane, London, E.C. 4. Copies may be ordered through any bookseller.



DAVID GEAR, of Wyong, New South Wales, Australia, a queen breeder known to many New Zealand apiarists, has been awarded a Rotary Foundation Scholarship to study in the United States. He will be leaving Australia to commence his studies next March.

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A STORY which made most newspapers of the world recently concerned a Cabinet meeting in India which was allegedly broken up by a swarm of bees, some of which attacked attending Ministers. If the political utterances of the Cabinet Ministers are as muddled as the statement of the Chief Minister, Mr D. P. Mishra, who escaped unscathed, it may be just as well that the meeting ended abruptly. Mr Mishra is reported as saying "I suppose there was no queen among the bees to sting me."

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HONEY SALES received a welcome boost in the North Island during May through the enterprise of the Honey Marketing Authority who arranged for their Honey Queen entrant to attend a large Auckland store. TV's popular programme TOWN & AROUND covered the promotion extensively and interviewed Helen Barber and the HMA manager, Colin Gosse, giving emphasis to named nectar source honey. Stores for miles around experienced a greatly increased demand for these packs after the programme had been screened.

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A STATE BEE BREEDING establishment in dense hazelnut forests is reported by Tass to comprise 165 apiaries of 17,000 hives in Soviet Kirghizia, where bees have been established for 100 years. Apiarists in the Soviet Union and abroad are supplied from this source with a strain noted for its hardiness and high productivity.

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NEWS OFTEN TAKES a long route to reach its destination. British Bee Journal reports a letter from Aussie John Guilfoyle that ling grown for winter stores in New Zealand emanated from packing used to send bottles of Scotch to soldiers in the Maori wars. The heather protected the bottles, and the contents lined the Scottie's tummies against the cold nights. That's news to me, but we live and learn.

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GLEANINGS reports that two pessimistic beekeepers met at Conference. Instead of shaking hands, they shook heads.

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CABBAGES SIX FEET TALL, with edible heads weighing 10 lbs., are reported as having been grown by a Hungarian scientist. This gives rise to some interesting thoughts. If science can increase a brassica in this manner, how about clover the height of corn with nectar secretion as big as raindrops. Or how about a race of bees as big in proportion capable of carrying pounds at a time back to their factory like structure? Before we all have nightmares, let's hope they forget it.

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BRITISH BEE JOURNAL writing on the subject of field bean pollination, refers to the hazard of spraying when the beans are treated for black fly. Farmers are now, however, trying out a soil treatment to tackle the aphid menace by means of which the plant absorbs chemicals through the roots which kill the aphids before flowering time.

N.Z. BEEKEEPER

PUBLIC LIABILITY INSURANCE

A classical instance of the advantage of the Association's insurance of Members has been instanced by an unusual and equally unexpected happening on the West Coast, with the end result that Tom Holland is very glad of the financial protection offered.

Early this year, in fine and mild conditions with sufficient nectar being gathered to keep bees in normal good temper, Tom visited an out apiary and took off his surplus by 11.15 a.m. paying a normal penalty of some half dozen stings.

Shortly after mid day, however, the bees missed their hard earned stores and decided to look for the miscreant. By this time, of course, Tom was well away with his truck and getting on with work further afield.

Some 150 yards away from the first apiary now bereft of stores, three farm dogs were chained to their kennels. In the absence of the robberin-chief, the bees decided that their fury would be vent on the defenceless dogs and their owner. The latter took cover; one dog was able to slip his collar and escape to the house, but the other two unfortunates were stung to such an extent that one died and the other was seriously ill.

Not unnaturally, the farmer required compensation for his working dog, which was of proven working stock, and evidence was produced that an untrained pup of similar breeding would cost \$100.

Tom passed over ensuing solicitor's letters to the General Secretary of the N.B.A. and a representative of the Association's insurers investigated the claim for compensation.

The New Zealand Insurance Company promptly fulfilled its obligations to the Association by adequately compensating the claimant for his loss, and Tom was absolved from both compensation and legal costs involved.

Claims by third parties for damage caused by bees are few, but this instance highlights the wisdom of every beekeeper, large and small, of being a paid up member of the National Association. Tom's subscription to the Association will be 'paid' for a very long time to equal the amount paid out by our insurers on his behalf.

AUGUST, 1967

ITALIAN QUEENS 1967-68

UNTESTED 1 to 5 12/6 each 6 to 10 12/- each 11 to 19 11/6 each 20 and over 10/- each

SELECT UNTESTED

SELECT TESTED

1/- extra per queen

TESTED

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DELIVERY: November to April

TERMS: Cash with order Cheques to have exchange added Telegrams 2/- extra.

Orders of 20 or over AIRMAILED free on request.

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The development of these Queens extends over a period of 20 years, resulting in the creation of a hard working, high producing and non-swarming strain of gentle temperament.

Bred from disease-free hives under natural conditions.

Apply to-



Commercial Queen Breeder,

P.O. Box 4032 KAMO, NORTHLAND

Plaster filled the jagged hole round the pipes and made a bee tight closure for the trap.

HOW TO MOVE BEES FROM INSIDE CAVITIES

By Edward R. Walshaw, who wrote this interesting article for "GLEANINGS" and here reprinted by kind permission.

"Would you like to get a nice swarm of bees?" asked the man on the phone. "Sure would," I answered, "Where are they?" He gave me the address, and before hanging up I asked, "How high up are they"?

"Oh, I'd say about three feet," he replied.

"Good. I'll be right over." Relieved at not needing a ladder, I hastily gathered smoker, veil, hive etc., and grabbed the "bee basket", which contained everything from matches to rubber bands, and was soon at the site of the swarm.

Everything was very quite, there were no spectators or usual crowd of kids, all itching to see me stung, and this was odd, because we were right in the middle of a populous subdivision.

"Where are the bees?" I asked, grabbing an armful of supplies as the home owner appeared.

"Round back. Come on, I'll show you."

N.Z. BEEKEEPER

When we reached the rear of the house, he pointed to a hole in the cement block wall. Bees were pouring in and out, and to complicate matters, the hole was also occupied by three pipes. I set down my load. There wasn't much point in carrying it further.

"How long have the bees been in there?" I asked.

"Oh, a couple of months. They don't bother me, but they make my wife nervous when she hangs out the wash. I tried to drown them out with the hose, and we've tried three kinds of bug killer, but nothing seems to work. Are you going to call them out?"

Repressing the retort that I wasn't the Pied Piper, I explained that since the bees were established, and had brood, they couldn't be evicted suddenly. I told him it would take some time and I would have to make different preparations. He said to go ahead and do what was needful, he didn't care if it took a week to get them out. "Just so you don't damage the wall", he amended.

At home I dug out the old bee books; looked for and found an illustration and article that showed what was necessary. The idea was to set up a hive in front of the hole, and cover the entrance to the bees' nest with a wire funnel, the small end of which opened at the entrance to the hive.

The following day I set up the hive and funnel, with the exception that I made two wire funnels, one inside the other, the inner one to act as a baffle if any bee got by the first. The bees came out through the trap, and soon hundreds of nectar and pollen laden workers were milling about the wire cone, trying to find their way back to their nest. A few entered the catchhive and began to rob the bait comb I had placed inside.

I was satisfied, and figured the bees would go into the catch-hive when they found they couldn't get back to their hole in the wall. I had reckoned without consulting the bees.

A couple of days later I went back to check, and found the bees flying nonstop through the small ends of both funnels as if they were not there. A few were trying to get in at the base of the cone, but soon ran up to the tip and went in, where bees with exposed scent glands were busily fanning. I was stumped.

At home, I called my friend Mr J. L. O'Ferrell, prominent queen rearer and package bee man, who has spent a lifetime with bees, and is a student of bee behaviour. He soon put me on the right track. "And", he added, "the queen will come out in six weeks, too."

The hole in the side of the wall was the first difficulty. It was the lead-in for the gas and water pipes supplying the house, and a third pipe that had no known use.

I took some plaster of Paris and filled 'round the pipes, leaving a smooth rim. Then I got a one half gallon bleach bottle and cut it in two, saving the bottom half. I nailed a Porter bee escape to a circular piece of plywood, and glued this to the bottom of the bleach jug with contact cement. There was, of course, a hole in the centre of the plywood and bleach bottle beneath the bee escape.

Taking a piece of plastic cloth, (any cloth would do as well,) I cut a circle to fit over the bleach jug, leaving tabs for glue, and a skirt to be glued to the wall. I fastened the whole thing to the side of the house over the entrance to the bees' nest with contact cement. Next, I troweled plaster of Paris around the bleach bottle so all was bee tight.

A five frame nuc was set up, containing a frame of emerging brood, a comb of honey, and three frames of foundation. The nuc was pushed as close to the bee escape as possible.

Advertisement

H.M.A. Election, September, 1967.

Fellow Beekeepers,

As stated in the November "Beekeeper" I will be a candidate at the forthcoming election. Despite the fact that last year you decided by a narrow margin to elect Mr Cloake to the position I had held on the Authority for the previous three years, I feel that my particular training and circumstances leave me with considerable responsibility to again offer my services to the industry.

I am, of course, necessarily in close touch with marketing trends and events throughout the world. A sale of five tons of dark beeswax by my company on 26th July, 1967 at 70 cents per Ib. F.O.B. Napier, payment at sight of Bill of Lading tends to confirm that we keep ourselves informed on the best available markets at any given date.

t suggest that the present difficulties in which the industry finds itself are mainly due to its failure to adopt the policies on which I was originally elected to the Authority. The failure to adopt these policies was undoubtedly brought about by pressure applied by persons who were not primarily interested in the welfare of commercial producers of honey.

I am satisfied that my company is better placed than most beekeepers to survive the Authority's present absurdly expensive marketing procedure and its childish self-imposed restrictions on its own powers in favour of overseas interests. However, from the information at my disposal, I feel bound to warn beekeepers that unless the Authority displays more ability in marketing, many beekeeping businesses in this country will not survive the next few years. I also feel that the Australians are bound to experience the worst setback in the history of their industry and under the existing sole agency set-up I think some of their troubles may rub off on us.

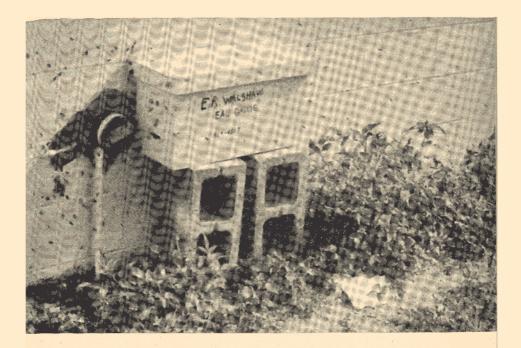
A Hawke's Bay remit passed at the Whangarei Conference last year proposed a study of our marketing problems by Massey University. Apparently the N.B.A. could not find the necessary funds and I have no doubt that the H.M.A. would not encourage an independent scientific appraisal of the merits of its policies by making funds available for such a purpose.

I anticipated this result and was ready to approach the University to make a study at the expense of my company. This study is now well advanced and I will have the results available for circulation to electors along with my election manifesto. From time to time over the past few years I have sought opinion on our problems from several highly qualified persons at the University. I acknowledge with sincere thanks the helpful co-operation of Mr Duncan Ridler, now with the I.M.F., Prof. Candler now with Purdue University, U.S.A., Mr Alan Ward, present Senior Lecturer in Agricultural Economics, who found time to attend and observe throughout our recent N.B.A. Conference, and the prior honey packers meeting, together with Mr Malcolm Bale, a junior lecturer, who is setting out the study of our marketing set-up, and any suggestions for improvements he may be able to offer. No doubt our honey producers will be well served by such an independent and impartial study by men whose training all too often establishes them in positions beyond our shores.

After receiving the report from Massey University I will compile and forward to all electors my election manifesto which will be based on a policy of reducing marketing costs and achieving an economic price for honey at the point of extraction. This is the urgent need common to us all.

> Yours sincerely, (Signed) PERCY BERRY.

31st July, 1967.



Bleach Bottle—bee escape in position. Bees leaving the wall cannot return and go with the others inside the catch-hive.

The following day the bees were frantic, flying all about, clustering on the wall, and trying to force their way in against the springs of the bee escape. As evening came, more and more entered the nuc, but there were many dead and dying bees on the ground, exhausted by their efforts to get back to their home.

I checked daily, and soon found the bees storing nectar and pollen in the catch-hive, and only young bees on their first flight trying to force the bee escape. There were no more dead bees.

After five weeks there was no activity about the bee escape, and though I watched for a long time, no bee came through it. I checked the nuc. There were about four frames of bees, some stores, but no brood, no eggs, and no queen. Meanwhile, the owner of the house had moved out, and a new tenant, not so tolerant of bees had moved in. He asked me to get the bees out of there and reluctantly gave me one more week.

As there was absolutely no activity about the entrance to the wall, I thought everything was dead in there, so the next day I brought down a full sized hize, and a nucleus with bees and a hybrid queen. I united the two colonics by the newspaper method, and a week later, I took them home.

Later, when I open the hive for a check, I found not my hybrid queen, but a large light tan, greasy looking old girl, quietly moving about one of the outer combs on which there was a small patch of brood. She moved slowly, and

seemed to drag one leg. I suppose she could have been hurt passing through the bee escape, or in any number of ways. Mr O'Ferrell had been right, after all. The old queen had come out in six weeks, just as he said she would. I was sorry about the loss of the hybrid queen, "but that's the way the cookie crumbled."

The hive seemed to make good progress, soon throwing healthy play-flights, so for a while, I left the old queen alone. Then on a routine check, I was surprised to find the hive bursting with brood, on almost every comb, some from top-bar to bottom-bar. I saw a bright yellow spot amidst a crowd of bees, and there was my marked hybrid queen, pert and pretty as you please. Although I searched diligently, of the old queen which came out of the wall I saw no sign.

This method can be used to remove established swarms from almost anywhere. With a few cents worth of plaster of Paris, rough and uneven entrances can be moulded into smooth seats for the bleach bottle-bee escape combination. The plaster sets quickly, and the bees can't gnaw through it or around it. The spring type bee escape effectually prevents their return to the nest. This system should do well on large bee trees, or others which for some reason cannot be cut; certainly it would be less work. In buildings, its advantage over chemicals or other methods is that it gets out the brood, leaving nothing to decay or smell; no ripped out walls or damaged property.

After no more bees are seen at the bee escape, check for the queen. If she is in the hive, the bee escape can be removed, and the bees will rob out the stores if any, from the old nest.

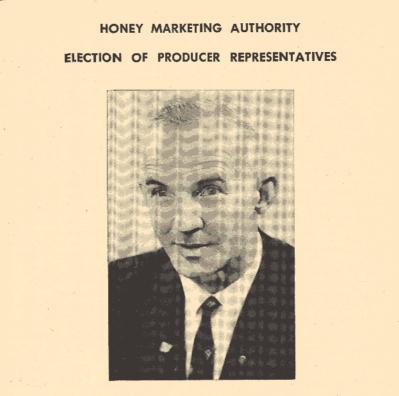
The first method tried was a failure because the bees were able to communicate the secret of the double funnel to each other. After a few hours, the cone presented no problem to them.

In addition, the old method advocated the use of a ripe queen cell in the trap-hive, thus insuring the unnecessary death of the old queen, by failing to take into consideration the instinct of colony preservation so strong among the bees. Today, most beekeepers know that when bees meet with frustration, dwindling numbers, and interference beyond their capacity to understand, they play their final trump card—to abscond—and so leave behind an intolerable situation and start afresh while there is yet time.

And so with our queen in the wall. Perhaps she fled from the empty nest with the last spoonful of her youngest born, even as the moth and the mouse began their destructive work.



ADVERTISEMENT



I am again a candidate for election as a Producer Representative.

For a clear statement of the achievements of the Authority in the past year, together with my views of the future, I would commend to your attention the Annual Report, already published, and my address, as Chairman, to the Annual Conference of the N.B.A., published in this issue.

For your part, you owe it to yourselves, and the candidates for election, to ensure that your democratic rights are exercised: take the necessary steps to see that you have the voting power to which you are entitled.

(Signed) J. W. FRASER.

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THE N.Z. BEEKEEPER

This Journal is issued free to all beekeepers in New Zealand having 30 or more registered hives, and to others who are members of the National Beekeepers' Association.

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 preceeding 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.

ADVERTISEMENT RATES

Quarter Page	\$4.50	Per Inch \$1.25
Half Page	\$8.25	Min. Charge 65c.
Full Page	\$15.00	for each insertion.

PICTURED ON THE FRONT COVER are the three finalists in the National Honey Queen contest sponsored by the Canterbury Branch of the National Beekeepers' Association as host branch for Conference 1967 at Christchurch.

Eight entrants competed for the title, judged by a panel of three comprised of two ladies and one gentleman who awarded points for a number of female attributes over a period of several days.

Entrants were: Miss Elaine Swetman (Waikato), Miss Helen Barber (Auckland), Miss Bernadette Soal (West Coast), Miss Janice Franklin (Southland), Miss Kathryn Mackie (North Otago), Miss Alana Harrison (South Canterbury), Mrs Joy Miller (Canterbury) and Valerie Bushby (Canterbury).

Selection was no easy task, and the male of the panel was said to be in a daze from the intensity of his observations. He was undoubtedly the envy of many other 'drones' who had equal claim to fame by self assessment in selecting queens.

Prize winners were announced at the social evening held at the Hei Hei Club, and the crowning ceremony became the enviable pleasure of the Chairman of the Honey Marketing Authority, Jack Fraser.

Wearing the crown of honour for the West Coast is Bernadette Seal, whose cash prize was \$100, runner-up in the Queen stakes was Valerie Bushby for the host branch with a prize of \$50, and place-getter for the Queen City was Helen Barber with \$30. Additionally, each contestant gained some new finery and an expenses paid trip.



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