THE NEW ZEALAND BEEKEEPER

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OFFICIAL ORGAN of the
NATIONAL BEEKEEPERS' ASSOCIATION
OF NEW ZEALAND
(Incorporated).

(An Organisation for the advancement of the Beekeeping Industry in New Zealand)

Better Beekeeping | Better Marketing

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WORDS AND THEIR MEANINGS.

Every calling has its technical terms—words which describe the various items or processes peculiar to the craft. In beekeeping circles many such terms are used but in some cases their significance is obscure or confusing.

"Probably," says the British Bee Journal, "no two words are more confused and misused than "nectar" and "honey". There is a lot of difference between the two substances, nectar being the raw material which bees collect from flowers, and a little from what are known as extra-floral nectaries. Who first coined the compound word "honey-flow" we do not know, but it is entirely wrong; the correct term should be "nectar-flow", for nectar is the substance the bees collect, and which they convert or process into honey. There is a very great difference between newly collected nectar and the ripe honey made from it." The same Journal makes further distinctions between terms which are frequently confused. A "frame", for example, is the contrivance within which the comb is built; a "comb" is the structure of cells in which the bees store honey and pollen, and raise brood. Consider also the word "hatch". The eggs of the honey bee hatch when about three days old, but it is incorrect to say "hatching brood" when referring to fully developed bees. It is better to use the term "emerging brood".

It is worth while to note the distinction between a "colony" and a "hive". A colony is a cluster of bees headed by a queen and working together as a unit, while a hive is an artificial receptacle within which the bees are domiciled. Similarly, a "nucleus colony" is a colony reduced to a small population for special purposes; a "nucleus hive" is a hive built to accommodate such a colony.

The English language, of course, is gradually but constantly changing; new words are introduced and old ones assume different meanings. The interesting point is that these changes are brought about by the man in the street—the scholars can neither prevent nor direct them, they can only record them. Naturally beekeeping terms will change with the years, but we should strive for uniformity, if not permanence, in their application. Technical terms have little value if they are used by different people to convey different meanings.

SPEAKING OF NUCLEI.

The word "nucleus" is simple enough in the singular number, but in its plural form it presents a rather formidable problem, and it is subjected to such a diversity of pronunciations that one might almost expect it to be driven from the language. According to the authorities it is permissible to say "nucleuses", but honey producers prefer to use the form "nuclei" regardless of its difficulties.

The question arises: What is the correct pronunciation ? The dictionaries suggest "new-klee-eye" and this is one of the many variations which may be heard at beekeepers' meetings. But a much more popular interpretation is "new-klee" (or "noo-klee"), a form which appeals to many people for obvious reasons.

If the virtues of brevity and simplicity are so important one might wonder why we do not formally adopt the abbreviation "nuke" and its plural form "nukes". Here is a short and simple word, not already in

general use for any other purpose, and free from any confused or diverse interpretations. The only difficulty in the way is man's innate conservatism—that peculiar quality which at the same time retards progress and safeguards the hard-won lessons of the past.

NOTICE BOARD

THE 1949 CONFERENCE.

The Annual Dominion Conference will be held in Rotorua on the 24th, 25th and 26th August, 1949. These dates coincide with the school holidays, and it will be advisable for members intending to be present to make arrangements for accommodation as early as possible.

REMITS FOR CONFERENCE

Members, and particularly Branch Secretaries, should note that remits must reach the General Secretary not later than the 20th June, 1949. Remits received after that date cannot be dealt with at the 1949 Conference.

CONVENTION AT DUNEDIN.

The Annual Convention of Otago and Southland beekeepers will be held on the 7th and 8th of June, 1949. Particulars are advertised in this issue.

AN EXPLANATION.

In our November, 1948, issue we printed an extract from an advertisement which appeared for some time in the "Auckland Weekly News." Honey was offered for sale in 60lb. tins at 1/4½ per lb., plus 3/6 for tins. We have received a letter from the Price Control Division pointing out that this figure appeared owing to a printer's error. The authorised retailer's price for 60lb. tins is 1/1¾ per lb., and this price includes the cost of the container.

AMENDING PRICE ORDER.

The following is a copy of Gazette Notice.

"Price Order No. 984 (Amendment No. 1 of Price Order No. 927) (Honey).

Pursuant to the Control of Prices Act, 1947, the Price Tribunal, acting with the authority of the Minister of Industries and Commerce, doth hereby make the following amending Price Order:—

1. This Order may be cited as Price Order No. 984, and shall be read together with and deemed part of Price Order No. 927 (hereinafter referred to as the Principal Order).

2. This Order shall come into force on the 28th day of March, 1949.

3. Clause 7 of the principal Order is hereby amended by revoking paragraph (b) of sub-clause (1), and substituting the following paragraph:

"(b) For other honey—

Maximum price per pound at the rate of	s.	d.
(1) Sold by a producer to a consumer—		
(a) In lots of 60lb. or less	0	11½
(b) In lots of over 60lb.	0	10½
(2) Sold by a producer to a packer, wholesaler or retailer	0	10½
(3) Sold by any person whomsoever to a wholesaler	0	10½
(4) Sold by a wholesaler (not including a producer) to a retailer	0	11½
(5) Sold by a retailer	1	1¼

Dated at Wellington this 22nd day of March, 1949."

BEEKEEPING IN AUSTRALIA.

"The Australasian Beekeeper". Illustrated monthly magazine, published by Messrs. Pender Bros. Pty. Ltd. Subscription, 8/- per year, posted.

Sample copy free on application to The Editor, P.O. Box 20, West Maitland, N.S.W., Australia.

SUGAR SUPPLIES.

An explanation of the sugar supply position and of the method of distribution is contained in the following letters which have been received by the General Secretary:

DEPARTMENT OF AGRICULTURE.

P.O. Box 3004,
Wellington, C.1.
13th April, 1949.

Mr. G. V. Fraser,
General Secretary,
National Beekeepers' Association,
P.O. Box 19, Foxton.

Dear Sir,

In reply to your letter of 1st April in regard to sugar supplies, the responsibility of the distribution of all sugar in New Zealand passed out of the Food Controller's hands back to the Colonial Sugar Refining Company at Auckland, and to merchants, when rationing of this commodity ceased some time ago, consequently there is no official controlling authority to whom representations could be made by this Department for special supplies for bee-feeding purposes. It would appear from enquiries made that there is little or no stocks of sugar held in country districts at present from which supplies could be released for beekeepers.

A statement made by the Manager of the Colonial Sugar Refining Company appears in yesterday's press (12/4/49) explaining the present position.

In the circumstances the chances of Otago beekeepers securing large quantities of sugar at present for bee-feeding purposes, does not appear very bright unless your Association is able to make suitable arrangements with the Colonial Sugar Refining Company for delivery of the necessary supplies where required.

Yours faithfully,
(Signed) T. S. Winter,
Superintendent Beekeeping Industry.

THE COLONIAL SUGAR REFINING COMPANY, LTD.

P.O. Box 30,
Auckland, C.1.,
20th April, 1949.

The General Secretary,
National Beekeepers' Assn of N.Z., Inc.,
P.O. Box 19, Foxton.

Dear Sir,

Your letter dated 12th instant has been received.

We are aware that sugar has been in short supply in Dunedin during the summer months, but with recent shipments supplies should be more freely available, although perhaps not in substantial quantities. We suggest that until the position improves the beekeepers should be able to obtain sufficient sugar for their requirements in the immediate future.

The indications at present are that the supply position should be overtaken before the end of May, by which time we are hopeful that your members should be able to obtain all they require, as necessary and convenient to them.

Yours faithfully,
(Signed) J. P. Wildman,
Manager.

HAWKE'S BAY REPORT.

The honey crop in Hawke's Bay this season will again be light. Early in the season there were prospects of a bumper crop, but seasonal conditions have since been against a good yield.

"The season has been most erratic, and generally it has been one of the most difficult for beekeepers for many years," said Mr. D. S. Robinson, Apiary Instructor at Hastings. "The bees have done everything beekeepers did not expect them to do, and more queens have been killed this year than in any other year that I have been in this district."

In the early part of the season willow blossom gave the honey harvest a good boost, and prospects looked good. However, later on, though there was a good deal of clover about, it did not yield, and hopes of a satisfactory crop quickly dwindled.

Abnormal seasonal conditions and the cold spell in January in particular, are blamed for the crop failure.

—Press.

SOUTHLAND REPORT.

The honey crop in Southland is smaller this season, and the quality is fair. The crop in areas around the coast is disappointing but in districts north of Gore and Winton it is satisfactory.

Broken weather in the coastal districts caused a poor flow of nectar from usually good producing country. Further inland, the weather was finer and the nectar flow was not affected to the same extent.

—Times.

DEPARTMENT OF AGRICULTURE
HORTICULTURE DIVISION

APIARY STATISTICS:

Following is a summary of apiary registrations at 31st March, 1949:—

	1-5 Hives.	6-20 Hives.	21-50 Hives.	51 Hives & over.
Beekeepers	4,017	1,502	422	546
Apiaries	4,112	1,727	763	4,767
Hives	9,406	16,000	14,004	134,976

These figures show an increase of sixty-two commercial beekeepers each operating over fifty hives, and an overall increase of 19,878 hives registered since 30th June, 1947.

HONEY PRODUCTION:

The final reports of Apiary Instructors indicate that beekeeping conditions experienced last season in many important localities were most unusual, due to low rainfall, strong winds or low temperatures at critical periods. Honey crops in parts of Canterbury, North and Central Otago are below average to very poor. In the North Island generally, the honey harvested this season is much darker in colour than usual.

The estimated overall (N.Z.) production of honey and commercial beeswax for the 1948/49 season is 4,190 tons and 113,700 lbs. respectively, against 4,750 tons of honey and 118,750 lbs. of beeswax the previous season (1947/48). Production of honey in domestic apiaries (included in the above figures for 1948/49 season), is estimated at 400 tons.

APIARY INSPECTION DISTRICTS:

Two new Apiary Inspection Districts were recently established with headquarters at Tauranga and Oamaru respectively.

Mr. R. Goddard, Apiary Instructor, is now stationed at Tauranga. This newly formed district (formerly part of the Hamilton and Hastings districts), comprises the following counties:—

Coromandel, Thames, Ohinemuri, Tauranga, Rotorua, Whakatane, Opotiki, Matakaoa, Waipu, Uawa, and Waikohu.

Beekeeping correspondence in the above counties should now be sent to the Apiary Instructor, Department of Agriculture, Tauranga.

OAMARU DISTRICT:

The newly formed Oamaru district (formerly part of Christchurch and Invercargill districts) is comprised of the following counties:—

Geraldine, Mackenzie, Levels, Waimate, Waitaki, Waihemo, Waikouaiti, Maniototo, Vincent and part of Lake County down to a straight line running west from the south west corner of Vincent County, through Kingston to Eyre Peak.

All beekeeping correspondence in this area should now be sent to the Department of Agriculture, Oamaru, where Mr. I. W. Forster is stationed, following his transfer from Invercargill.

Beekeepers residing in the remainder of the old Hamilton, Hastings and Invercargill Apiary Inspection districts should continue to send beekeeping correspondence to the Apiary Instructor, Department of Agriculture, at those centres respectively.

CONTROL OF GRASS ROUND BEE-HIVES:

Grass round bee-hives is a problem to the majority of beekeepers in New Zealand and causes considerable deterioration of wooden hive parts on or near the ground.

Following is a copy of report (9/3/49) received from Mr. T. Pal-

mer-Jones, Research Officer, Wallaceville, on this subject:—

"During the last four seasons trials have been made of sodium chlorate and commercial salt as a means of controlling grass surrounding hives in the laboratory apiary. Both substances were found satisfactory for keeping down grass within a space of one foot of the bottom boards of the hives. The substances should be applied in the dry powdered state to the grass during dry weather as heavy rain may wash them away before they have killed the grass. One application in which the grass is lightly covered followed by a few applications on those areas of grass which do not wither usually suffices to destroy the grass. Once the grass has been destroyed round a hive only an occasional application is required to prevent it regenerating.

"These substances cause no mortality in bees and are fairly cheap. Sodium chlorate is not easily obtainable at present and hence it may be advisable to recommend commercial salt, which can be bought in small sacks.

"Other methods have been considered but they all appear to have some serious drawback such as high cost, danger, or dirtiness, as in the case of the use of oil waste."

T. S. WINTER,
Superintendent, Beekeeping Industry.

AUCKLAND PACKING PLANT.

OPINION IN THE SOUTH.

In the course of a visit to the South Island towards the end of April, Mr. Wallace Nelson, one of the three producer representatives on the Honey Marketing Committee, addressed meetings of producers in the various centres.

Twenty-one were present at the meeting of the South Canterbury Branch, held in Timaru, Mr. W. Jennings being in the chair. Mr. Nelson addressed the meeting at considerable length, referring to the work of the Honey Control Board during the war years, and to the vital need for an organized marketing system in the future. The operations of the Honey Section of the Marketing Department and the possibility of its closing down were fully discussed, and in reply to a question Mr. Nelson stated that there was definitely no possibility of a commandeer being introduced under the present marketing set-up. No resolution was put to the meeting as members preferred to defer until a later date any expression of the opinion of the Branch regarding the continued operation of the Honey Section.

On April 29th a combined meeting of the Gore and Southland Branches was held at Gore, and there was a representative attendance of sixteen. Mr. N. Glass presided. After a comprehensive review of the marketing situation by Mr. Nelson and a general discussion, the following resolutions were carried:

"That the Gore and Southland Branches are in favour of the continued operation of the Honey Section on the present basis."

"That in the event of the Honey Section being closed down by the Minister, the Committee make every endeavour to maintain a central marketing organisation with Government representation, to have custody of the reserve fund then in existence and the assets and business of the Honey Section."

Further district meetings were pending when the Journal went to press.

"American Bee Journal," published by Dadant & Sons, Hamilton, Illinois, U.S.A. Subscription rate 1.75 dollars.

MARKETING DEPARTMENT
(HONEY SECTION)

HONEY RECEIPTS.

In response to the circular sent out by producer members of the Honey Marketing Committee, the following is a summary of the honey promised and received up to the 28th April:

	Cases	Cases
Advices of quantity intended to send		5,140
Received to date	3,094	
Honey forwarded without notification	2,078	
Total number of cases received to date	5,172	
Honey in transit to Packing Depot	458	

SEALS.

Inspections have been carried out in many districts this year and the Seals Regulations are being fairly well observed. The approximate receipts of seals is £3,500, which is £1,000 higher than that compared with the same period last year.

HONEY FOR PARCELS.

The Commercial Manager of the Chief Post Office has complained to the Department of the damage that has been caused to overseas parcels by packing liquid honey in cartons and in unsoldered tins. It is pointed out that the worst feature of the matter is the damage caused to other goods in the parcel, as well as to adjacent parcels. Beekeepers are therefore requested that when selling honey for inclusion in overseas parcels, they should see that the tins are properly sealed, and also advise people who are packing parcels not to include cartons of honey.

SOUTH ISLAND TRIP.

The Honey Marketing Committee advised that Mr. W. Nelson, producer member of the Committee, will be contacting producer members in the South Island, and where possible, arrange meetings.

PAYOUT PROCEDURE.

There has been an alteration in the method of making the payout to producers. In the past, it has been the practice to forward a cheque when forwarding the Grade Note to the producer. In future, a Credit Note will be forwarded with the Grade Notes, at the same time a duplicate copy of the Credit Note is handed to the ledgers in this office and after posting; the cheque is then made out and posted. Therefore, you should receive your cheque three or four days after receiving your Grade Note. This is not an actual delay, but it will mean that your Grade Note will be posted to you earlier than has been the practice in the past.

WORLD RECORDS.

The world record held by Mr. Schnetler of 820lbs. honey from a hive with one queen has been beaten this season by 19lbs. Mr. Schnetler has taken 839lbs. off the hive this season. The record-breaking hive with an unspecified number of queens has so far yielded 795lbs. 12ozs. of honey, and last night (13th November, 1948), the hive weighed 915½lbs., which will give another 400 to 500lbs. nett, making a total nett gain up to date of well over 1,100lbs., thereby breaking the world record of 1,000lbs. This hive had an increase of 40lbs. in one day (8th October, 1948), which is 4lbs. more than the American record of 36 lbs. in one day. Congratulations Mr. Schnetler, we all wish you good luck.

—The S.A. Bee Journal.

HONEY MARKETING COMMITTEE

REPORT TO COMMERCIAL HONEY PRODUCERS.

At a meeting of the Committee, held in Auckland on Tuesday, March 15th, replies to the circular recently issued by producer members to the Industry were considered. The response to the circular was far from encouraging, but the Committee recognises that the exceptionally erratic honey producing conditions prevailing this season have made it impossible for beekeepers in many areas to provide the information requested in this circular.

Until the end of December, it was anticipated that the season would be an exceptionally good one, but unfortunately January (usually our best producing month) proved to be one of the worst on record in certain areas. The consequence is that the total crop will be below the average and certainly smaller than it was last year. This, no doubt, has reduced possible supplies to the Marketing Department and creates a serious situation in view of the fact that the Minister of Marketing has plainly intimated to the Committee that unless we receive a much greater tonnage of honey than has come forward to the Department in recent years he (the Minister), will feel impelled to recommend to Cabinet that the Honey Section be closed down.

The Committee views this situation very seriously. It is generally considered that without a marketing organisation no primary industry can survive, and this probably applies moreso to honey than to any other product—

EARLY INFORMATION FROM INTENDING SUPPLIERS DESIRED.

Many of those communicated with have not provided the Division with the information requested in the form that accompanied the last circular.

It would be of very great assistance to the organisation if these forms were returned in order that the amount of honey likely to come forward can be approximately assessed.

We realise that owing to the low crop many beekeepers may feel that the little they may have available is hardly worth sending forward. The Committee desires to emphasise that any quantity received from a beekeeper, no matter how small, will help because apart from the great need for the honey, we desire to have as many suppliers as possible. This assists the Committee to provide evidence that producers desire the services of the Department to continue. The Committee is satisfied that if beekeepers will curtail their local sales in favour of an increased supply to the Department, then the amount received will be sufficient to meet an exceedingly difficult situation and justify the continued existence of the packing plant, floor space and general facilities now made available to the Industry by the Government.

THE OVERSEAS MARKET.

The Committee had the opportunity recently of meeting Mr. Watson of the London branch of the Department. A very comprehensive report of the overseas position was presented to the Committee by this officer.

There is no doubt that our overseas service is in a position to dispose of a much greater quantity of honey than we are in a position to send forward and that this can be disposed of at a price level satisfactory to the producers.

It is unfortunate that owing to the shortage of supplies, we are unable to reap the full benefit from the goodwill that has been established over the years by Imperial Bee Honey.

Our overseas representatives are keen to carry out certain re-organisations that will lead to further economy in the handling of our produce

and the uncertainty of supplies alone is responsible for delayed action in this direction.

THE SEALS LEVY.

Reports from the Department responsible for ensuring observance of the Seal Levy obligation, together with the actual return of revenue from this source, show a great improvement over the position of a year ago, and suppliers can be assured that their interests are by no means being neglected in this matter.

MORE PROMPT PAYMENT TO SOUTHERN SUPPLIERS.

Shipping facilities for the forwarding of honey from the South Island are still very difficult and the Marketing Department has agreed, providing the Advice Note from the producer is accompanied with the Bill of Lading or Receipted Railway Consignment Note, to pay advances on all honey from the South Island. If any producer experiences difficulty in obtaining shipping space for supplies coming forward to the factory in Auckland, they should contact the Marketing Department, who will endeavour to assist them.

BEESWAX.

Members of the Committee are concerned because there is a possibility of beeswax being imported into this country at a lower figure than that recently authorised for the local beeswax, namely 3/6 per lb. Producers are requested to advise the Marketing Department if they have any surplus beeswax in order that the Department may advise intending purchasers where the beeswax is available.

PAYOUT.

As already explained in our previous circular the initial payout on honey is 7d. per pound pro rata, according to grade, plus 2¼d. per lb. flat rate. There is also a bonus of 1/16d. per lb. paid for extractions of 20 cases increasing to 1/12d. per lb. for extractions of 21 cases and over. Any additional bonus will be declared at the end of the season after a review of the trading activities for the year.

The Committee cannot too strongly emphasise the urgency of attention by producers to the above matters and the necessity of immediate action by those who desire the services of the existing organisation to continue. We ask you to supply the Department with as large a quantity of honey as possible.

E. A. FIELD,
F. D. HOLT,
W. W. NELSON,

Producers' Representatives,
Honey Marketing Committee.

HOW MANY SUPERS ?

Not many beekeepers have enough supers to contain a maximum crop without stopping to remove some honey in the midst of the honeyflow. Dr. C. C. Miller wrote much about an ample supply of supers. He advocated having enough to hold the biggest crop ever harvested in the beekeeper's particular locality. After a record breaking harvest in 1916 he stated that, for his neighbourhood, this would be seven supers for each colony to take care of his biggest crop.

Such advice cannot be taken too literally, however, as these big crops come only at intervals and in the years between many supers would have to be stored without use, compelling repeated fumigations and constant protection against damage. Most commercial men strike an average and equip enough supers to hold the best average crop, preferring to rotate (extract and return supers) in the big years.

The average beekeeper, however, usually fails to have enough supers even by this measure. He also frequently fails to give supers in time to get a full crop. More honey is lost from this faulty manipulation than from most other causes. A good supply of equipment is not only a good investment but it is also insurance against a loss of part of the crop.—American Bee Journal.

BRANCH NOTES

NORTH OTAGO.

Owing to the unavoidable absence of Mr. J. C. Neill (President), the March meeting of the North Otago Branch was presided over by Mr. C. R. Sprackett, our enthusiastic Duntroon member.

Mr. I. W. Forster (Apiary Instructor for the district) has at last taken up residence in Oamaru and was welcomed by local members, who hope that his stay will be a long and happy one. Mr. Forster, in a brief speech, thanked the members of the Branch and expressed his appreciation of the work done by Mr. D. G. Hamilton in his capacity as part-time inspector.

The honey crop in North Otago this season has been very disappointing—about a quarter of the average crop being extracted owing to the extremely dry season.

Spring feeding difficulties were discussed at length and it was decided to ask the National Executive to make arrangements to have a supply of sugar available for feeding next spring.

Correspondence from the General Secretary regarding taxation of hive holdings was thoroughly discussed and it was decided to forward the following resolution to the National Executive:—

"That this Branch of the National Beekeepers' Association of New Zealand (Inc.) having considered the question of taxation of hive holdings, requests information from the National Executive explaining why the Conference motion: 'That before August the Executive take action with the Commissioner of Taxes to ensure that for taxation purposes hive holdings continue to be classified as a capital asset' was not given effect to."

WEST COAST.

The apiary of Mr. H. Dent at Ross proved an ideal place for the annual field day of the West Coast Branch of the National Beekeepers' Association. The weather was perfect for the occasion and beekeepers from all parts of the West Coast assembled and made this gathering one of the largest to be held by the Branch in recent years.

The President, Mr. E. Airey, senr., introduced Mr. Dent, who handed over his apiary for the day. Mr. Airey extended a welcome to Mr. T. Pearson, of Darfield, President of the Canterbury Branch and also a member of the Executive of the National Beekeepers' Association. He also introduced Mr. D. Briscoe, Apiary Instructor, who gave an address on how to handle and pack honey, to ensure that it is put on the market in the best conditions possible.

After this talk, the luncheon adjournment was taken.

After lunch, Mr. T. Pearson, Canterbury, gave a practical demonstration of the preparation of cell cups, and raising queens by the grafting method. The finer points of this important work were dealt with in detail and Mr. Pearson illustrated his plans on a blackboard, so that everyone could follow fully the raising of the queens.

The supering up of colonies during the honey flow was the subject of a talk given by Mr. P. Lucas, of Harihari and following this the Apiary Instructor gave a demonstration on how to approach and open a hive, and outlined the procedure to be followed when examining a colony.

A very enjoyable afternoon tea was supplied by the hosts.

Mr. Pearson gave a general talk on the work of the National Beekeepers' Association Executive, covering some of the latest developments during the past year. His talk was followed with keen interest by the beekeepers and he ably answered all questions put to him.

Mr. Airey thanked Mr. Pearson for attending and for the information he gave beekeepers concerning association matters.

Before the close of the afternoon's

proceedings, it was proposed that the West Coast Beekeepers' Association seek agreement with the Canterbury Branch to have a inter-provincial beekeepers' field day and Mr. Pearson was asked to put this proposal before his Branch.

Mr. Airey, senr., moved a hearty vote of thanks to Mr. H. Dent, Mr. and Mrs. Dent, senr., and all those ladies who assisted to make the day a successful and enjoyable one.

—R. V. Glasson.

SOUTH AUCKLAND.

The South Auckland Branch held a most successful field day at the Crystal Springs, Matamata, on April 26th, 1949. It was a lovely day and the attendance was good, sixty-five being present. This was a great effort as there were many counter-attractions. The loyalty shown by members under these circumstances makes future annual fixtures very desirable.

A brief outline of the programme is as follows:—Opening address by Mr. Barber, followed by a demonstration of an uncapping boiler and machine for boring holes in the end-bars of frames given by Mr. C. R. Paterson. Mr. J. D. Lorimer gave a brief address on wax rendering and during the luncheon adjournment members, their wives and friends were able to renew many acquaintances. Mr. and Mrs. Davies were given an especial welcome.

To commence the afternoon programme, Mr. Holt gave an address on the problems of export market. He was ably supported by Mr. Nelson. This was followed by a demonstration of a honey stirer, a working model, by Mr. Paterson, and finally a well tabulated diagram of the local marketing channels and address by Mr. Paterson.

There was a congenial atmosphere throughout the whole day and much valuable information and instruction resulted.

—J. D. Lorimer.

OTAGO.

The Otago Branch field day was held on Saturday, November 27th, 1948, at Mr. A. J. Simon's apiary at Fairfield, and in spite of unfavourable weather a good attendance of ladies and members was present. The President, Mr. J. McFadzien, welcomed the visitors, including Mr. Boomer, Mayor of Green Island. The beginners' talk was very ably given by Mr. J. M. Marshall. Mr. I. Forster demonstrated hive manipulation for the prevention of swarming. Mr. Simon showed methods of moving hives and Mr. J. McShain exhibited queen rearing equipment. Afternoon tea brought an interesting day to an end and a vote of thanks was extended to the ladies and Mrs. Simon for attending to the refreshments.

The quarterly meeting on February 7th, 1949, was attended by some 25 members and ladies. After the business was concluded a discussion on Acarine disease and similar troubles affecting bees created considerable interest. The Secretary, Mr. Lindsay, gave a short resume of a trip through the North Island and visits to apiaries in the Thames district, and exhibited three queen wasps captured in the Hamilton district, and spoke of the tremendous increase of the pest in that area. He also expressed thanks for the way he was welcomed by Mr. Paterson at Hamilton. Supper brought a pleasant evening to a close.

—A. F. Lindsay.

P.S.—Don't be alarmed, Otago beekeepers, those queen wasps were DEAD.

BEE SCOUTS.

"That bees send out scouts to seek a suitable abode, can admit of no serious question. Swarms have been traced to their new home, either in their flight directly from the hive, or from the place where they have clustered; and it is evident that in such instances they have pursued the most direct course. Now this precision of flight to such a 'terra incognita' as an unknown home would plainly be impossible, if some of their numbers had not previously selected the spot, so as to be competent to act as guides to the rest. Whether the bees send out their scouts before or after swarming may admit of more question. In cases where the colony flies without alighting to its new home they are unquestionably dispatched before swarming." — L. L. Langstroth.

NOTES FOR BEGINNERS.

(By "Skep.")

In the dark winter of the year, when all is barren, bleak and sere, what shall I find to put down here?

Skep hopes to write to some beginners who will be the commercial producers of the future. Some commercial producers have become so almost by inheritance, being among the bees from childhood, and continuing to run, and perhaps extend, a business started by their fathers. This is perhaps an easier way, but most, including Skep, have become interested in bees in some way such as the capture of a truant swarm. when plans have failed and swarms have strayed is it then all loss, or has possibly one of those lost swarms entwined itself into the future of some budding beekeeper.

When ten years old Skep was walking home from school with an orchardist's son, and there on the bough of a tree hung a swarm. Hop said his father would not want it, and all Skep had to do was to come back and shake it into a box, and leave it till the end of the season, then take the honey. Skep was doubtful, it seemed too easy, but Skep came back; alas Dad had wanted the swarm, and had taken it. But Skep's interest had been awakened, and slumbered for some years, till one day a large swarm landed in his father's garden, who took it in an old meat safe, and bought a hive, one and a-half storey section honey hive, in the flat. Dad tried hard but could not see how the parts fitted, so seventeen-year-old Skep, home for the week-end, tried with more success, all apple pie, except the tin section separators, for which no one could think of a use; so Skep in desperation tacked them on the sides of the super to protect the wood, and made the first mistake of many to be made with bees.

So Skep should be telling novices how to assemble gear ready for the coming year, but novices can very likely tell Skep how to assemble gear, for some have the knack of tidiness and good order, which is pleasing. Beginners should remember that beyond all else it is knowledge of bees and bee behaviour that will stand to a beekeeper through the years. Skep has spent many hours just watching the bees work, and observing them at the hive entrances. Just what one learns it is hard to say, but one does learn to work in harmony with the bees, and when a beginner one has time to do this. Later on other interests and pressure of work will prevent one enjoying this quiet pastime. So Skep would advise beginners to use a sunny hour or two studying their bees. The time will not be wasted and should be a pleasure.

The building-up period of the young commercial beekeeper will be looked back upon as the happiest time of his career. Often it is struggle, with limited capital, and beekeepers have become expert at putting their ingenuity and labour into waste materials to help build up their holdings. In various parts of Skep's apiaries will be seen discarded two-foot ridging flattened out for iron for a hive cover, old tank bottoms cut for the same purpose, and other economies. Beekeeping does offer to those who are keen enough a chance to become independent, without too great a capital outlay, provided one is willing to work.

When Skep started beekeeping honey was about 3½d to 4d per lb.; at present it is three times that price; but everything needed is proportionately dear. To those young beekeepers who have borrowed money on their holdings, and unfortunately few have completely freehold properties, Skep would point out that though honey may fall in price during a recession in prosperity, all other commodities will probably likewise fall, and one's purchasing power will remain somewhat constant. The present time, one of inflation, is therefore the best time possible to make an effort to become completely a freeholder.

Perhaps in these comments Skep

has gone outside the purview of notes to beginners, but as mentioned before Skep hopes some will be commercial beginners, for it is the beginner who must eventually take on the established holding and create the demand necessary to make of it an asset.

This dark winter of the year is the time to plan. Your best laid plans may go astray, but without the plans little progress can be made. It is an interesting pastime to sit by the fire and make plans for the coming year's work, and then to back one's plans by preparation, to have the necessary supers, bottom boards and covers, ready for the coming year. Wax too should be melted, blocked, and sent to a foundation manufacturer for conversion into comb foundation. It is surprising how much wax can be obtained if you will save and render every scrap. With moderate increase of colonies, and the securing of fair crops of honey, one's wax supply should about keep pace with one's needs for foundation.

If a beginner is contemplating extending gradually until he ultimately becomes a commercial producer it is a good idea to arrange a target for each year, somewhat on the lines of mathematical progression, say ten hives increasing to twenty, the first year, twenty to forty the second, and so on, not more increase than this, and to endeavour to make the bees pay their own way as they go, out of the proceeds of the honey crops. It should, however, be remembered that good unoccupied clover locations for commercial numbers of hives, say three hundred, are becoming increasingly difficult to find.

In regard to the wintering of the bees we are fortunate in New Zealand in that no special precautions such as cellar wintering are necessary. If the bees have been made snug, and have sufficient stores, the less they are tampered with during May, June and July, the better. A quick overhaul may be undertaken on the sunniest days in August, but even then if the beekeeper is sure he has left sufficient stores it is better to leave them undisturbed till a thorough and methodical check over can be made in September. The best wintering conditions are secured in those districts which have a hard enough winter to cause the queens to cease to lay almost entirely during May, June and July. In the North a certain amount of brood rearing goes on most of the year. This, however, is no avantage, it not only exhausts the queens, it also diminishes the food supply, and causes the hives to be strong in bees too early the following season.

Conference will be held this year in Rotorua. Of late years Conferences have become more and more a business discussion of commercial beekeepers. Should keen beginners attend they will find it worth while mostly in what they will learn during evening discussions of beekeepers in hotel lounges, so see that you join these discussion groups; the more experienced beekeepers will welcome you. Skep wishes you all good wintering

A PROBLEM.

After honey is extracted it is usually held in the tank for some days so that small particles of wax, pollen grains, air bubbles, etc., will rise to the surface. The honey is then skimmed before being drawn off.

The pioneer of New Zealand beekeeping, Isaac Hopkins, in his book, "Practical Beekeeping", describes an early honey house in which shallow honey tanks were used. "The tanks being shallow," he writes, "it did not take long for the scum to rise to the surface to be skimmed off."

On the other hand, a writer in the well-known American publication, "The ABC and XYZ of Bee Culture," makes the following statement: "I believe that sedimentation (the rising of small particles to the surface) is much more rapid in a tall tank than in a low flat one because of the greater weight to be had over a smaller space."

So there is the problem: Does honey clarify sooner in a deep tank than in a shallow one? We invite replies to this question, and the most convincing answer will be published in our next issue. No entry fee, and schoolboys must start from scratch.

GADGETS AND IDEAS.

PROTECTION FROM MICE.

At the close of the season, queen excluders are useful for protecting combs from mice. In the store-room an excluder may be placed on top of each pile of supers, and in the apiary one may be inserted between the floor-board and brood chamber of each hive.

Mice can cause much damage if no precautions are taken. When floor-boards are made to a standard design it is easy to prepare entrance guards, but they should be accurately and substantially made. Mice can enter through a $\frac{3}{8}$-inch opening and if the going is not too tough they will enlarge a smaller opening in order to gain an entrance.

TO KEEP AN OLD BREEDING QUEEN.

Question:—I have a queen mother that is old but able to do some more breeding. The bees are getting ready to supersede her. I should like to know how I can keep her alive for another season.—George Graham, N. Y.

Answer: — The breeding queen should be kept in a nucleus so that she will not be required to do so much work. Her colony can be strengthened in the fall by adding brood from other colonies, but in the spring the breeding queen colony should not be permitted to build up to more than two or three frames of brood, which means that her brood chamber should be restricted to a small hive or nucleus box.

—Gleanings.

FINDING A QUEEN.

"What should the beekeeper do if he wants to requeen a colony and simply cannot find the old queen?" A. Herbolsheimer, in the June Hessische Biene, answers this question thus. Take all the combs, with bees, out of the hive into another box, and brush all remaining bees out of their hive also, then close the entrance. Put the young queen in a cage, fastened into an empty frame, into the empty hive. Then go to a sunny spot behind the hive and dump all the bees off the combs into an empty hive, quickly. Then, equally quickly, put the cleared combs back into their original hive on either side of the frame with the queen cage. Soon the bees will accumulate at the entrance of their old hive; as soon as they show a tendency to seek elsewhere for a way in, open the entrance. They will march in joyfully. [The author says, it is not even necessary to wait till they show signs of seeking for a new entrance: since 1942 he has opened the old hive's entrance at once after dumping them off the combs, and no accidents have happened.] The old queen, surrounded by a few faithful "maids of honour", remains in the hive where she was dumped, and can be caught at leisure and her attendants returned to their old home.

—The Bee World.

LIGHTING THE SMOKER.

"How do you light the smoker," says a query in "The Australasian Beekeeper", "when you have travelled twenty miles to an isolated apiary and discover that you have no matches?"

A typical reply was the following: Start your engine in car or lorry, wet a piece of bark or paper with benzine, pull one of the lead wires away from your spark plug which will cause a spark, and light your bark or paper.

(Like the A.B.K., we recommend beekeepers to remember their matches. When you start mixing sparks with petrol you might make a bigger fire than the one you aimed at.)

ONE METHOD OF IMPROVING STOCK.

The author of the following is anonymous, but it sounds sensible:

"1. Breed from the best queen.

"2. Next season select drone mothers from the best daughters of that queen and isolate them so that other drones are not nearer than three to five miles.

"3. Use the queen mother as long as possible."—Gleanings in Bee Culture.

NEW CHEMICAL FOR BEEKEEPERS.

(By C. L. Corkins, State Entomologist of Wyoming.)

Calcium Cyanide is a new and most useful chemical for the beekeeper. In Wyoming we have used it for five different purposes during the past three seasons. Listed in the probable order of their importance to American beekeeping these purposes are: First, efficient destruction of diseased colonies as the first step in the burning treatment; second, fumigation for the control of the bee moth; third, destruction of wild bees in trees, rocks, and other places; fourth, killing of colonies in fall instead of wintering; fifth, control of ants in the apiary.

The active killing agent of calcium cyanide is the deadly gas, hydrocyanic acid gas, which is liberated upon exposure to the air. Since hydrocyanic acid gas is notable as a most deadly poison to all life, two questions immediately arise; first, is it safe to use?; and second, will the honey and combs become contaminated and poisoned?

In answer to the first question, it may be said that calcium cyanide is now in general use as an insecticide, both for indoor fumigation and outdoor destruction of certain insects. In the case of indoor fumigation it has largely displaced the old sodium cyanide and sulphuric acid method of generation of hydrocyanic acid gas, because it has taken away most of the elements of danger in such a practice. It is safer to use chiefly for two reasons. The liberation of the poison gas is slow and gives the operator time to place the charge and retire from the building. In addition to this, there is a warning odour with calcium cyanide that you do not get in the case of the liberation of pure hydrocyanic acid gas. The warning odour is due to the generation of a small amount of calcium carbide.

Used in the open air, there is positively no danger in handling calcium cyanide if the ordinary precautions in the use of any poison are employed. The rapid air dilution of the slowly generated gas makes it perfectly safe to handle, especially if one heeds the warnings of the calcium carbide odour. Tons of this material are being used by the American farmers in the destruction of rodent and insect pests with no casualties noted to date.

Effect Upon Honey.

The question of the poisoning of honey, either in the destruction of bees or the fumigation for the bee moths, and its subsequent use as either human or bee food is, of course, of the utmost importance. As one beekeeper put it, "I am sending you a sample of honey from a colony of bees killed by the cyanide process. Please eat it and let us know if it is all right for human food".

Although there seemed little likelihood of the honey being poisoned, we preferred to allow a rabbit to be the martyr to the cause. As a consequence, 50 cc. of the sample were fed directly to the stomach of a rabbit through a stomach tube, and the rabbit still lives, though that was a year ago.

It was then decided to carry on some extensive experiments to settle this question definitely. The honey tested was all placed in three-frame nuclei, and these in turn kept in an air-tight room during the fumigation process, thus giving an exaggerated effect over outdoor conditions. The dosages of the poison were also exaggerated, so that the least possiility of poisoning the honey would be detected. Amounts as high as five ounces of calcium cyanide to a three-frame hive were used.

Three different types of honey were given treatment; namely, sealed honey, open cells of honey and extracted honey to which equal parts of water had been added. In the last instance, this thinned honey was placed in shallow containers so that the honey was ¼in. in depth, thus giving a large surface exposure as

compared to the depth, thus simulating a condition of open cells of green nectar in the hive.

Fumigation was carried on for 24 and 48 hour periods in the closed room at a temperature of 18deg. to 22deg. C. Some hives were given the usual §in. entrance open. Others were closed tight with wrapping paper. Some of the gas was liberated under normal air humidity conditions. In other cases, moistened blotting paper was used in the hives to raise the relative humidity.

At the conclusion of fumigation, the honey was immediately cold extracted, diluted with equal parts of distilled water, and placed in airtight containers. In the majority of cases 50 cc. of this material was fed to 24-hour starved rabbits directly through a stomach tube. In no case was there the least discomfort displayed, and the university veterinarian pronounced them all normal.

A man weighing 160 pounds would have to eat a little over two pounds of honey at one sitting to have an amount proportionate to that given a rabbit of average size in the experiment.

Failing to get any reaction from the rabbits by the above methods, pure hydrocyanic acid gas was bubbled through honey diluted as above, and 50 cc. fed after exposure to the air for thirty minutes. This produced violent convulsions in the rabbit, but first-aid treatment prevented death. This was the particular rabbit that went through the original experiment, taking my place as the patient.

No Danger of Poisoning Honey.

These results of the experiments, showing that there is no danger of poisoning honey in the ordinary fumigation with calcium cyanide, were much as expected. All of the salts of cyanide are unstable and quickly broken down in the presence of the weakest acid. If the cyanide were actually absorbed in the honey, it would doubtless mean the formation of some one or more of its salts. Such would be prevented by the acid reaction of all honeys. In the case of the experiment where the gas was passed through the honey, it doubtless would have been harmless if allowed to stand in a shallow dish in the open air for some time, or heated, as would be the case with foul honey before being used as a bee food.

It should also be further said that this method of fumigation is now a standard practice in restaurants and other places where food is exposed to the gas, and even when little or no precaution is taken, the foods are found not to be harmful.

It would seem rather certain, then, that honey exposed to any of our practices of calcium cyanide fumigation can be safely used as either a human or a bee food. Our practical experience, as well as experimental data in Wyoming, supports such a statement.

Use in Destroying Diseased Colonies.

Now for methods in the use of calcium cyanide by the beekeeper. Its use for the destruction of diseased colonies prior to burning seems to me to be of primary importance because in the destruction of a diseased colony by a novice there is many an opportunity to scatter infection. By the sulphur, formaldehyde, or other usual methods of killing the colony, there is every possibility in the world for either nurse or field bees, engorged with diseased honey, to get out of the hive and wander into a healthy colony. Far more danger of spreading disease is apparent in the method of throwing the hive-bodies containing live bees onto a raging fire, even though this be done at night and the entrance first closed.

By the calcium cyanide method there is not the least danger of getting live bees into the air, if properly handled. Wherever possible, the bees should be killed at night when all are in, and quiet. About a tablespoonful of "G" grade calcium cyanide granules are spread out on a cardboard and slipped into the entrance of the hive. The entrance is then closed. In five minutes or less, the bees are all dead and the hive may be thrown onto the fire. In doing this, great care should be ex-

ercised not to lose any of the dead bees out of the hive, as disgorged droplets of diseased honey may be left on the tongues of the dead bees and these might be picked up by healthy bees during the robbing season.

In the case of killing healthy bees, the method is naturally the same, except that the ordinary precautions against outside bees need not be taken.

Use in Fumigating Combs.

Fumigation of combs to kill the bee-moth may be done by stacking the hives, if they are fairly air-tight, and placing the dosage at the bottom of the stack, or by stacking the supers crisscross in a tight building, and sprinkling the calcium cyanide out finely on newspapers placed here and there about the building. In either event, the operator should leave the building as soon as possible and **lock all doors and windows.** After a twenty-four hour treatment, open the building sufficiently to give a draft and **do not enter for two or three hours.**

For stacked-super fumigation, use at the rate of four pounds to 1000 cubic feet of space. Half as much will suffice for tight-house fumigation. These dosages will kill bee-moths in all stages.

For the destruction of wild bees in houses, trees, rocks and other cavities, a small hand dust gun to force the dust in under pressure is used. Each of the inspectors in Wyoming is equipped with such a dust gun, and wherever wild bees are discovered they are killed, and, if possible, the entrances closed. A hundred and thirty wild swarms were thus treated in one county last season. This will help to reduce the menace of wild bees in the distribution of disease. However, this situation can not be entirely handled by inspectors. The method is here discussed in the hope that it will enlist beekeepers to use it in co-operation with the inspectors to eliminate as many wild bees as possible. In the intermountain region, at least, these bees are a serious factor in the control of American foul brood.

THE WINTER CLUSTER.

HOW DO BEES KEEP WARM? By M. J. Deyell.

Preparation for Winter. — Bees know better than their owners how to solve wintering problems. Generally speaking, if colonies in double brood chamber hives well filled during the normal season, are permitted to keep the honey they have, stored in the brood chambers, they will, in most instances, go through the winter successfully.

Perhaps not enough is known how a colony goes through the winter. A number of beekeepers seem to think that the bees simply huddle up together on the combs in order to keep warm, and eat enough honey during the winter to keep them alive. That is true, of course, but there is a method or system in their huddling together that is not well understood. Even some of the experts may not agree on what actually takes place within the cluster of bees.

As I interpret the literature on this subject, a colony of bees starts to form a winter cluster when the temperature surrounding the bees gets down to approximately 57 deg. F. The lower the temperature goes, the tighter the bees cluster. When the weather gets really cold, the bees on the outside of the cluster form a rim or periphery about two or three inches in thickness with their heads pointing to the centre of the cluster, and their bodies packed tightly together, this to retain some of the heat generated by muscular activity by the bees on the inside of the cluster, where bees are clustered loosely.

It is said that the temperature in the centre of the cluster does not go below 57 degrees Fahrenheit at any time during the winter, even though the temperature outside of the hive should go considerably below zero.

Some think that bees on the shell of the cluster exchange places with the bees near the middle of the cluster, periodically during the winter, presumably to bring about a fair distribution of labour. Others do not think that this changing occurs.

It should be said that the cluster, which, as a rule, extends over from four to seven or eight combs, depending on the size of the colony, covers a portion of honey, also some empty cells. As the honey is slowly consumed, the cluster moves up during the winter. As a rule, the winter cluster is formed near the front of the hive and it will move up slowly, then, if it meets the top bars of the frame, it will move back. If all the honey in the combs occupied by the cluster is consumed before spring, and the weather is too cold for the bees to break their cluster and move to other parts of the hive to feed on remnants of honey that may be left, the bees will starve. Right here, it will be realised how important it is to have full combs of good honey directly above the cluster of bees during the winter.

What I Actually Saw. During the past winter I was out hunting rabbits near one of our apiaries. The bees in this yard were well protected against the prevailing winds and most of the hives were not packed or insulated, so I decided to lift up one end of an upper brood chamber (sometimes called the food chamber). As I did, an interesting sight met my eyes. When I lifted up one end of the food chamber, I split the cluster of bees into what appeared to be two equal parts. The entire cluster had been spherical in shape and occupied seven spaces between combs. The centre of the cluster, immediately after I lifted the end of the brood chamber, consisted of bees that were loosely clustered, in fact, they were moving about, while the outside rim or periphery of the cluster, which, by the way, was about 2½ inches in thickness, consisted of bees packed tightly together and were practically motionless. I opened two other hives and found identically the same condition, and so, if you want to see an interesting phenomenon, split a winter cluster of bees in two on a cold day and observe quickly and carefully the construction of the cluster. I do not recommend this practice generally except for experimental purposes.

—From "Gleanings," U.S.A.

BEES IN IRREGULAR SHELTERS.

A DANGER TO THE INDUSTRY.

(By E. Smellie, Apiary Instructor, Christchurch.)

Honey bees established in the walls of buildings, hollow trees, or in box hives other than movable-frame hives are a potential danger to the beekeeping industry in New Zealand, as, not being under proper care, they may become diseased and, particularly because of the propensity of bees in such locations to swarm each year, spread infection to neighbouring apiaries.

Swarming is an inherited instinct of honey bees and is a means of preserving and propagating the species, but in modern apiary practice swarming is unnecessary and undesirable; consequently all competent beekeepers endeavour to prevent swarming of their bees as far as possible.

Swarm Every Season.

Most bee colonies established in buildings, trees, or illegal box hives cast at least one prime swarm each season and often smaller ones which usually fly off and establish themselves in similar locations.

Swarms usually cluster on some nearby tree, fence post, or shrub before flying off again to some chosen location where they intend to establish themselves permanently.

The desire shared by most people not to allow anything of value to escape often inspires the finder of a clustered swarm to capture the bees and place them in some handy box, which he usually accomplishes without being stung, as the bees are good tempered and easy to handle during the first few hours after swarming.

The comparative quietness of the bees when handled at this time often creates initial confidence in the handling of bees. This factor, together with the interest already aroused by the arrival of the swarm, encourages the finder to commence keeping bees as a profitable hobby, and often results in arrangements being made to accommodate the bees in a regulation hive equipped with movable frames and for the registration of the new apiary. Unfortunately this is not always the case, as sometimes the enthusiasm which prompts the capture of a swarm begins and ends as soon as the bees have been placed in a box hive, the keeping of which is illegal.

Movable-frame Hives.

Movable frames in a hive are essential to enable the beekeeper to keep a check on the condition of his bees and to make a regular inspection of the brood nest for disease control purposes.

The provisions of section 6 of the Apiaries Act, 1927, are important and should be known to every property owner, as they provide for a heavy penalty for allowing bees that may have become established in any hive other than one with movable frames to remain after notice to remove them has been issued by an inspector. Bees that have established themselves in buildings or other irregular shelters must also be removed or destroyed to prevent the possible spread of bee diseases.

The wisdom of these provisions is readily appreciated when it is realised that American foul brood is very contagious to bees in the larval stages. Unless bee colonies which are infected with the disease are quickly discovered and the disease eliminated, they remain a continuous source for the spread of infection to other colonies of bees within flying radius. American foul brood contracted by hive bees in this way involves the owners of commercial and domestic apiaries in a recurring disease incidence, causing considerable financial loss and much trouble in the management of apiaries.

All owners of property on which bees have become established in buildings, trees, or in rock cre-

vices should therefore take steps to have them removed by a competent beekeeper immediately they are discovered, or communicate with the Department of Agriculture's Apiary Instructor for the district for advice. This action is essential to prevent further swarming of unattended colonies and the possible spread of bee diseases.

Transferring Bees.

Any competent beekeeper could determine whether bees established in a box hive (without movable frames) are worth saving. If there is the slightest trace of infection with American foul brood (Bacillus larvae), the box and complete contents, including the bees, should be destroyed by fire immediately.

The transferring of disease-free bees from a box hive to approved hive equipment is best done on a fine day when most of the bees are out working in the fields. There are then fewer bees on the combs to contend with and less chance of interference from robber bees. A standard hive complete with frames, bottom board, and cover must first be prepared to receive the bees. The box hive should be removed to one side and the prepared hive put in its place. The best pieces of comb should then be removed from the box hive and cut to fit neatly into new empty frames secured in position with string or rubber bands fastened round the top and bottom bar of each frame.

Frames containing brood are placed in the centre of the new hive, while those with honey only are placed to each side. Any remaining space should be filled with frames wired and fitted with full sheets of foundation.

A little smoke gently applied as the work proceeds will cause the bees to retreat gradually from the nearest combs and finally cluster at the back of the box. When the work of transferring the combs is completed the remaining bees can be easily dislodged by giving the box a sharp dump at the front of the prepared hive, which they enter immediately and carry on in their new home. Any pieces of comb left over may be burnt or removed for boiling down with other wax combs if there is sufficient of it for this purpose.

There is practically no loss of bees with this method of transferring. The brood present induces the bees to settle down in their new surroundings, where they progress rapidly.

If more detailed advice is required for the elimination or transfer of bees established in quarters or under conditions which do not comply with the Apiaries Act, the district Apiary Instructor should be communicated with as soon as possible. It is important to report the presence of bees where they are established on any property in any other than approved hives.

Bulletin No. 242, obtainable free from any district office of the Department of Agriculture, describes fully bee diseases and methods of treatment.

—"N.Z. Journal of Agriculture."

HONEY JUBES.

Ingredients: 1 cup water, 1 large lemon, 1 cup honey, 1½ozs. agar gelatine.

Method: Dissolve gelatine in water by soaking 30 minutes and then boiling gently. Warm honey and lemon juice, stir well into gelatine. When cold, cut into small shapes.

"Flying insects live rapidly and their metabolism is excessive. If to this is added the fact that bees consume chiefly sugars in honey, there is apparently adequate explanation of the short term of life. They are creatures not of a day but of a few weeks and they well serve as examples of industry in that they die in a vain attempt to supply the colony with one more load of nectar."—Dr. E. F. Phillips, from his book, "Beekeeping."

APIARIES LEGISLATION.

A copy of the amended draft of the proposed Amendments to the Apiaries Act is printed below. These amendments, which provide for the controlled registration of apiary sites, will be considered at the forthcoming Conference and they should be studied carefully by members.

AN ACT TO AMEND THE APIARIES ACT, 1927.

PART I.

1. This Act may be cited as the Apiaries Amendment Act, 194 , and shall be read together with and deemed part of the Apiaries Act, 1927 (hereinafter referred to as the Principal Act).

2. The power conferred by the Principal Act to make regulations, is hereby extended to include power to make regulations prescribing the term for which registration of apiaries may be granted, and the conditions subject to which registration may be granted, refused or revoked, including a condition requiring the prior approval by the Minister or any person authorised by the Minister, in that behalf, of the site of any apiary and prohibiting or restricting the removal or transfer of bees, honey or appliances from the site on which they are located to any other site.

3. These regulations shall come into force on the.....day of..... 194 .

4. In these regulations unless inconsistent with the context, "Apiary" means any place where bees or appliances are kept.

"Appliance" means any hive, beecomb, extractor, or other appliance that has been used in connection with beekeeping.

"Beekeeper" means any person who keeps bees or appliances.

"Director" means the Director of the Horticulture Division of the Department of Agriculture.

5. The Apiary Registration Regulations, 1937, are hereby revoked.

6. All certificates, registers and generally all acts of authority and all other documents, matters, acts and things which originated under the regulations hereby revoked and are of continuing effect at the time of coming into force of these regulations shall enure for the purpose of these regulations as fully and effectively as if they had originated under these regulations and shall, where necessary, be deemed to have so originated.

PART II.

KEEPING OF BEES.

7. No person shall keep bees except on an apiary duly registered under these regulations.

8. No person shall keep less than 11 hives of bees except on an apiary registered as a domestic apiary under these regulations.

9. No person shall keep 25 or more hives of bees except on an apiary duly registered as a commercial apiary under these regulations.

10. Notwithstanding anything in the last preceding section it shall be lawful for any person to keep less than 25 but not less than 11 hives of bees on an apiary if and so long as such apiary is conditionally registered as a commercial apiary under these regulations.

PART III.

REGISTRATION OF APIARIES.

11. Every apiary registered under these regulations shall be registered as either a domestic apiary or a commercial apiary.

12. No premises or place shall be registered as a domestic apiary if more than 10 hives of bees are kept or proposed to be kept on the apiary.

13. Where any premises or place is registered as a "Domestic" apiary in the name of any person no additional premises or place shall be registered in the name of that person or in the name of any other person for the time being residing with that person as a member of his household.

14. No premises or place shall be registered as a commercial apiary if less than 25 hives of bees are kept or proposed to be kept on the apiary.

15. No premises or place shall be registered as a commercial apiary if the area occupied by the apiary exceeds one acre or the length of any one side of which exceeds five chains.

16. Notwithstanding anything in Section 14 hereof, any premises or place on which less than 25 but not less than 11 hives of bees are kept or proposed to be kept may be conditionally registered as a commercial apiary, but such registration shall be liable to cancellation as hereinafter provided.

17. A certificate of registration issued under the regulations hereby revoked in respect of any apiary which, at the time of the coming into force of these regulations:—

(1) Contains not less than 25 hives of bees shall enure for the purpose of these regulations as if it were a certificate of registration of the apiary as a commercial apiary.

(2) Contains less than 25 but not less than 11 hives of bees shall, subject to the provisions hereinafter contained, enure for the purposes of these regulations as if it were a certificate of conditional registration of that apiary as a commercial apiary.

(3) Contains not more than 10 hives of bees shall enure for the purposes of these regulations as if it were a certificate of registration of that apiary as a domestic apiary.

18. (1) Except as provided in the next succeeding sub-section, the registration of any premises or place as a commercial apiary after the date of the coming into force of these regulations shall be refused if the proposed site of the apiary is less than two miles by a right line from any part of an apiary registered in the name of any person other than the applicant for registration of the proposed premises or place.

(2) The registration of any premises or place as stated in Section 18, sub-section 1 hereof shall be made operative by Counties, only on the written request of commercial

beekeepers owning 75 per cent of the hives in a County, excluding hives owned by domestic beekeepers.

19. Notwithstanding anything in Section 18 (1) hereof, where the owner of any apiary registered as a commercial apiary fails to maintain his apiary at a reasonable standard of efficiency and production to the satisfaction of the Director, the Director may, on the application of any other person, register as a commercial apiary any premises or place which is less than two miles by a right line from any part of the registered apiary of that owner.

NOTE: **Clause approved provisionally,** the Director undertaking to see that it is altered to provide that an apiary could be registered within the two-mile limit in the event that "Premises" (such as a honey house, super store, etc., which must be registered under the regulations—see Section 4) where no bees were kept, were registered as an apiary.

PART IV: CANCELLATION OF REGISTRATION.

20. The certificate of registration in respect of any apiary may be cancelled by the Director in any of the following events:—

(1) If the registered owner so requests, or

(2) If the Director is satisfied that the owner has not used the premises or place registered as an apiary for a period of not less than nine months immediately preceding, or

(3) If in respect of any premises or place conditionally registered as a commercial apiary under these regulations the registered owner fails to increase the number of hives of bees kept on his apiary to the minimum number required for unconditional registration as a commercial apiary within twelve months from the date of the certificate of conditional registration issued in respect of that apiary.

21. Where the conditional registration of any premises or place as a commercial apiary is cancelled pursuant to sub-section 3 of the last preceding section the owner of the apiary may apply for registration of the apiary as a domestic apiary, provided the number of hives kept on the apiary is reduced to a number not exceeding the maximum number permitted for registration as a domestic apiary under these regulations.

PART V: CHANGING LOCATION OF APIARY.

22. No owner of a registered apiary shall remove or transfer his apiary or any part thereof from the premises or place on which it is situated to any other premises or place except in pursuance of a permit granted by an Inspector and subject to such conditions as he thinks fit to impose.

23. No permit shall be granted under this part of these regulations to transfer or remove, either permanently or temporarily, an apiary registered as a commercial apiary under these regulations or any part thereof from the premises or place on which it is situated to any other premises or place if the premises or place to which the apiary or any part thereof if proposed to be removed or transferred is within a distance of two miles by a right line from any premises or place for the time being registered as a commercial apiary in the name of any person other than the registered owner of that apiary.

24. Subject to the provision of the last preceding section a permit for the temporary removal or transfer of the whole or any part of an apiary registered as a commercial apiary from the premises or place on which it is so registered to any other premises or place may be granted by an Inspector upon such grounds as he may deem sufficient without nevertheless affecting or disturbing the continued registration for the purpose of these regulations of the premises or place from which the apiary or any part thereof is authorised to be so removed or transferred.

NOTE: Subject to the provisions of Section 23, Section 24 is intended to provide that, if a beekeeper wished to move his bees from an established apiary where he had protection to another place where he could get a catch crop, he would still retain protection and the registration rights of the original site, to which he could return his hives after getting the catch crop. This is to provide for moving bees temporarily to get early spring feed, for instance. In such a case, a beekeeper would naturally want to return to his main site and it would not be fair if someone else moved in, in the meantime.

25. Every application for a permit for the temporary removal or transfer under the last preceding section of the whole or any part of an apiary registered as a commercial apiary shall set forth the grounds upon which the applicant desires that a permit for such removal or transfer should be granted.

ONTARIO'S HONEY HARVEST.

With the bulk of the honey now in the combs, if not already extracted, the crop for the 1948 season in Ontario can be fairly closely estimated. Abouth 75% of a normal crop or about 15 million pounds is expected.

The harvest is spotty. One of the odd features about it is the fact that areas in which the honey crop in the past few years has been a failure, and where studies on seed setting, and nectar secretion were getting under way, gave good yields this year.

Apparently all that is required to get good honey production is to set up a committee of experts to scare the bees into ding the job.

—Canadian Bee Journal.

UNITED STATES FIGURES.

The latest figures show that in the United States there are 5,718,000 colonies of bees. This works out at one colony to each 24 of the population. In New Zealand the ratio would be about one to twelve.

CORRESPONDENCE.

To the Editor.

Dear Sir,

May I crave the use of perhaps quite a slice of your space to discuss a few matters which I think may interest quite a few readers.

During the last eight years I have not missed one conference, and during every conference there has always been a lot of discussion around the seals levy, but on each occasion the principle of the levy has been affirmed by conference.

It will be remembered that last year there was a general note that the conference wanted the levy properly enforced or wiped out altogether. The conference decided on enforcement.

Flagrant breaches were reported to the I.M.D. One was a large packing firm of Auckland, whose honey was openly displayed and sold for months by a large firm with several branches in this district. The honey was unsealed, and labelled Pure WHITE Granulated CLOVER Honey, but to look at resembled glue. Another was a pack by one of the largest beekeepers in the country, and also openly displayed unstamped

The local manager of the I.M.D. attended a meeting of our branch and explained that the packer of the first case had since died, and so no action was possible, and that in the second case the stamps had been sent with the honey. and the grocer had **forgotten to put them on.** He also promised that future action would be more severe, but it would be hardly fair to prosecute the grocer in these "initial" stages.

I had much pleasure in reading to him a report from the N.Z. Beekeeper, dated October, 1941, of a similar case in which the Honey Section is quoted thus: "There is a liability on the person who sells the honey to the consumer to see that the seals are on all packages at the time of sale over the counter. **There can be no possible arrangement for exempting from bearing stamps honey so sold.**"

Also, October, 1941: "In order that retailers generally may be fully aware of the legal position regarding the affixation of seals, the Grocers' Federation **has been communicated with** by the Association".

How much longer are the beekeepers of this country going to tolerate a position whereby the apiarist is heavily penalised by obeying the law? Nearly eight years ago we read: "The I.M.D. has given an assurance that action as may be necessary to deal with the matter **will be taken immediately** on receipt of reports of further breaches.

And now another matter.

Prior to last Conference, after reading about similar legislation being already in existence in Australia, I moved a remit in our branch, which resulted in Conference passing the following amendment **unanimously:** "That the incoming executive report to next conference on legislation for the protection of apiary sites, with the provision that **protection be limited** to cover sufficient apiaries for an economic unit."

The discussion around this remit and amendment was quite plain. It was considered that by limiting the protection, great dangers seen by many in the previous draft of the proposed legislation, were removed, and it was the wish of conference that this new amendment be incorporated in the old draft, and circulated to branches, in order that they could come to next conference fully prepared to discuss this important business.

What happened? The Minister was apparently approached again on the old draft, which had been twice rejected, and I consider this was a grave blunder that may prejudice the Minister's decision when the matter is again introduced.

Further than this, the Branches were circularised, and the old rejected draft sent out without **one word** of the proposed amendment, which was the whole basis of the matter being again introduced.

Surely this is an extraordinary proceeding in view of the express direction of Conference.

To my mind it is just one more instance of neglect of problems vital to many of us, which has been displayed by the present administration over a period of years, and very difficult years for many of us.

From reports I have heard from many quarters, I feel that a change of administration is long overdue.

Yours faithfully,
G. F. R. GORDON.

(The draft of the proposed amendments to the Apiaries Act has been amended since the original proposals were circulated following the 1941 Conference, and the Minister's objection is not to the form of the draft but rather to the lack of unanimity among beekeepers.

The recent circular to Branches, in referring to this subject, states: "Following the discussion which took place at the 1948 Conference, the General Executive decided that the amended draft should be circulated to Branches prior to the forthcoming Conference in order that delegates and members should be more conversant with the matter and thus be in a position to decide upon a course of action to be followed at this year's Conference."

On the basis of this draft the 1949 Conference may decide what constitutes "sufficient apiaries for an economic unit", and the method by which protection is to be limited.—Editor.)

April 28th, 1949.

To the Editor.

Dear Sir,

There is a growing feeling that the election of officers at the Annual Conference should be by delegates' vote.

The election by popular vote places too much power in the hands of the comparatively few who can afford the time and expense to attend Conference.

The power to get a delegates' vote is already in the constitution, by a majority vote of delegates present at Conference.

I would appeal to all branches to consider the matter carefully and instruct delegates how to vote on this question, so that **all** may be represented in the vote.

Yours faithfully,
G. F. R. Gordon.

EROSION.

The soil can be regarded as a protective garment covering the earth, the fabric of which is woven from living organisms and mineral matter cemented into crumbs by humus and further reinforced by elastic living bands—the roots of plants. The power to resist wear by erosive forces depends on the cementing capacity of the humic compounds and the strength of the living fibres of the fabric. When either or both are damaged, the garment begins to wear or erode. More drastic reactions result from upsetting the balance between vegetation and the soil. The force of the rain is no longer buffered, the loosely arranged soil particles, no longer bound and held in position, are easily displaced by impact of the raindrops and are carried into the pores of the soil to rapidly seal the surface, with the result that further rain runs off. carrying with it displaced soil particles. As it gathers momentum it scours and dislodges further soil particles, and in so doing forms rills that enlarge to gullies as it carries its load of soil to the stream below. The stream and the river into which it flows correspondingly adjust themselves to the increased flash flow of debris - laiden water that requires greater channel capacity.

WASP INFILTRATION.

Wasps are reported in Hawke's Bay and in Taranaki, but so far no nests have been found in these areas.

APIARY SHELTER

By C. R. PATERSON,
Apiary Instructor, Hamilton.

Much bee-keeping literature in the past has stressed the necessity for the provision of adequate shelter for the bees, and urged the planting of certain live hedges. As the years pass by this shelter can become a definite drawback. Too much shelter during the winter months is inclined to keep the hives damp for long periods, thus not only shortening the life of hive equipment, but providing conditions under which the bees do not winter well. Excessive shelter, even with dry conditions, is still not ideal for wintering, as on sunny days the increased heat causes too much bee activity and the consumption of additional stores. In the spring warm, sheltered apiaries are ideal for working in, but too often considerable trouble is experienced in keeping down excessive swarming. Colonies in these positions build up too rapidly in the early spring and are very often past their peak when the main honey flow commences. Absolute lack of shelter, with the hives exposed to continuous cold winds, is not conducive to successful wintering. Conditions half way between these extremes are desirable, and can be obtained by careful selection of the apiary site to take advantage of the natural lay of the ground and to secure maximum sunshine with protection from prevailing winds, but at the same time allowing a free flow of air around the hives. This is sometimes referred to as "air drainage." Where a break-wind is desirable the most suitable type is to erect a fence about 6ft. high of slabs or 8in. x 1in. boards spaced about 2in. apart. This will break the main force of the wind and allow the necessary free circulation of air.—N.Z. Journal of Agriculture.

BEE FACTS.

In a recent broadcast nature talk we learned that the bee can pull 300 times its own weight. The creature is even more effective when it goes into reverse.

NEW SOUTH WALES.

The beekeeping industry is making good progress in New South Wales. Statistics show that for the year ending 31st March, 1947, slightly over 9,000,000lbs. of honey was produced, and last year's production amounted to nearly 10,000,000lbs. This year substantial progress has already been made in extraction of honey, and with excellent honey-flow prospects still offering on the flora, it is estimated that a further record production of 12,000,001bs. will be gained in New South Wales. This is about 5,500 tons. —N.S.W. Agricultural Gazette.

DRYING CAPPINGS.

By D. Curtis.

The average small beekeeper may find the following method simpler than Mr. Rea's for cleaning up a small amount of cappings: Take off the cover of a hive, put on a bee escape board with the bee escape removed, then a wood and wire queen excluder on top of that, and then an empty super. Dump the cappings in (after they have drained all that they will drain) and cover up tightly. This should be done at evening, as Mr. Rea says, to prevent robbing, and the cappings should be stirred at evening until the bees have carried all the honey down.

—From Gleanings.

HONEYMOON.

According to "L'Apiculture Francaise," the word "honeymoon" originated with the age-old custom of southern Europe of the bridal couple devoting themselves exclusively to the drink "hydromel," for thirty days immediately following the wedding. Hydromel is a drink slightly fermented, made with honey.

"THE N.Z. BEEKEEPER"

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

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CONVENTION.

The Annual Convention of Otago and Southland Beekeepers will be held in the

PIONEER WOMEN'S MEMORIAL BUILDING,
362 Moray Place, Dunedin,
on the 7th and 8th JUNE, 1949.
JUNE 7th, 7.30 p.m.
Addresses on Beekeeping.
JUNE 8th, 9.30 a.m.
Session for Commercial Beekeepers.
7.30 p.m., Social Evening.

A cordial invitation is extended to visitors from other districts.

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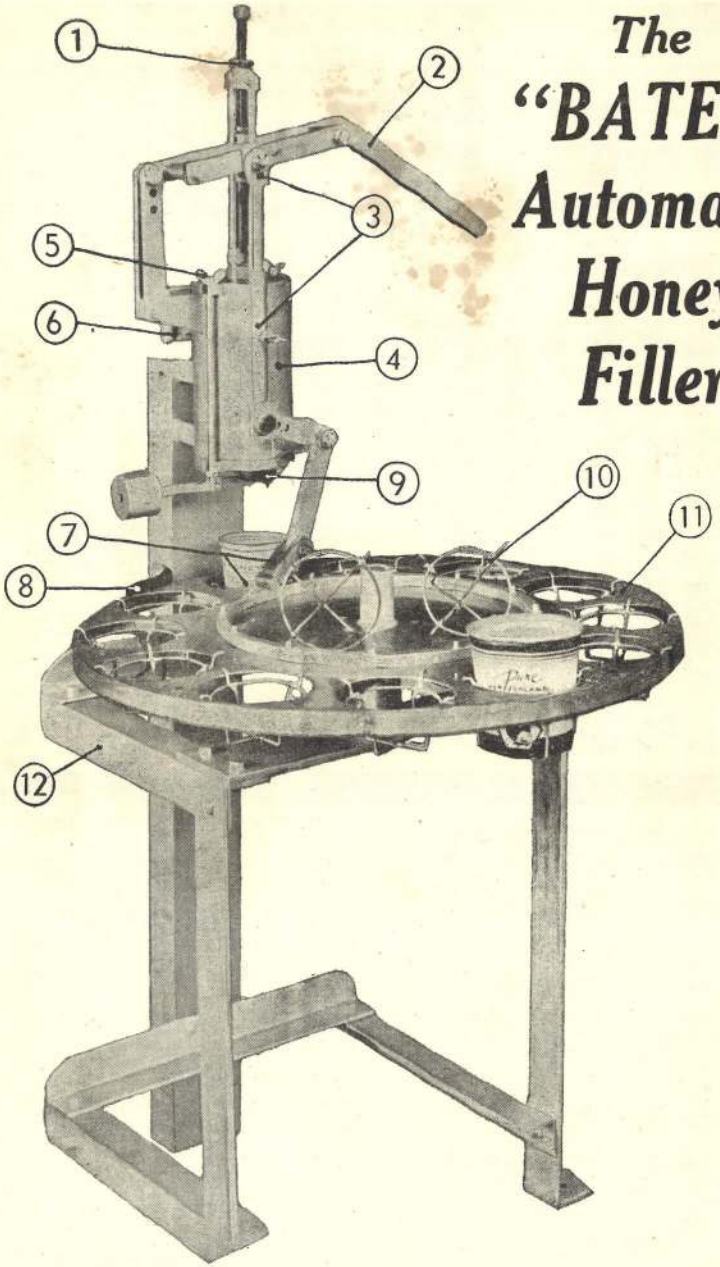

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