The New Zealand Beekeeper

NOVEMBER 1961

The National Beekeepers' Association

(Incorporated)

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NATIONAL DIPLOMA IN APICULTURE

By A. M. W. Greig, Director Horticulture Division and Member, Examining Board of Royal N.Z. Institute of Horticulture

A National Diploma in Apiculture N.D.Ap. (N.Z.) has been established under the Royal New Zealand Institute of Horticulture Act 1953 by the Royal New Zealand Institute of Horticulture through an Approval Notice issued by the Hon. T. L. Hayman, Minister of Agriculture on September 8, 1961. The establishment of this diploma has previously been mentioned to beekeepers at one or two Annual Conferences and it is pleasing to note that it has now been established.

This diploma if widely supported by beekeepers should become the hallmark of the qualified practical beekeeper. The Institute is authorised under its Act of 1953 to grant diplomas without examination to any person not less than forty years of age who has practised beekeeping for not less than twenty years and who in the opinion of the Examining Board is qualified to receive the diploma. This authority to grant diploma without examination expires after two years from the date of the Approval Notice i.e. on September 8, 1963. Any beekeeper who is interested should make application direct to the Dominion Secretary of the Royal New Zealand Institute of Horticulture, Mr. K. J. Lemmon, P.O. Box 450, Wellington. The fee payable on the award of the honorary diploma is the sum of two guineas. In order to stimulate interest and encourage those under forty years of age to study for and sit the necessary examinations the presentation of diplomas could well be made under the auspices of a branch of the National Beekeepers' Association or at an occasion regarded as suitable by the community in which the beekeeper resides.

Younger practicing beekeepers will be more interested in some of the specific provisions relating to this diploma. The examinations are in three stages—Junior Certificate, Intermediate Certificate and Diploma, each stage normally requiring a minimum of two years theoretical and practical work. For the junior examination the Examining Board has to be satisfied that the beekeeper has had at least two years' satisfactory practical experience in working with at least five colonies of bees. Two additional years of practical work are required at the intermediate stage and at the diploma stage the candidate must have had a minimum of six years beekeeping with a minimum of five colonies.

The junior examination consists of General Science or Chemistry as prescribed for School Certificate, Bookeeping, Horticultural Botany, Beekeeping and an oral and practical examination Stage I. The intermediate examination consists of Entomology Stage 1, Apiary Products, Bee Pasturage and Stage II of the oral and practical examination. The diploma exams consist of Entomology Stage II, Pathology and oral and practical examination Stage III and a Thesis. The oral and practical examination at each stage shall be combined and the oral questions shall be asked mainly about the demonstration, practical operation and identification performed by the candidate.

In the oral and practical examination Stage III the candidate shall inspect an apiary containing not less than fifteen colonies of bees on a commercial site and the candidate will be required to write a written report on the general

condition of the site, bees and equipment of the area and on any action he may consider necessary to bring the apiary up to normal working standards.

Bee pasturage covers the plants which constituted the main sources of pollen and nectar, their flowering periods and the characteristics of honey produced from them. Special reference is made to specific botanical families.

The subject Apiary Products covers honey, with special reference to the factors controlling nectar secretion, harvesting of nectar and its conveyance to the hive. This subject also deals with the changes during conversion of nectar into ripe honey and the means whereby these changes are brought about. Honey substances, honey granulation, the uses of honey, and various aspects of beeswax also come under this heading.

Entomology Stage II deals with bees in relation to agriculture and horticulture, the crops that benefit by insect pollinators, the effects of agricultural practices on pollinating insects and the effects of agricultural chemicals on honey bees.

For fuller information anyone interested should write to the Secretary of the Examining Board, Mr. K. J. Lemmon of Wellington. Copies of the Approval Notice are also available at 6d each from the Government Printer, the reference being 1961/122.

.:Notice Board:.

H.M.A. Election

At the 1961 election only two nominations were received for the two vacancies, these being Messrs. G. E. Gumbrell of Geraldine and Mr. J. D. Lorimer of Hamilton. Messrs. Gumbrell and Lorimer were accordingly appointed to the Authority as producer representatives for a three-year term commencing October 10, 1961.

Mr J. D. Lorimer

Mr. Gumbrell is the present Chairman of the Authority. Mr. Lorimer is a new member but is well known to commercial honey producers and has taken an active part in beekeeping affairs including terms both as Secretary and President of the South Auckland Branch. At present he is a member of the Dominion Executive of the Association.

Government Representative

A recent Gazette notice announces the appointment of Mr. E. W. Lee, replacing Mr. A. E. Wood, as Government representative on the Honey Marketing Authority.

Photographs

"The N.Z. Beekeeper" welcomes photos from readers depicting beekeeping personalities or items of beekeeping interest. For preference the prints should be fairly large and simple in composition, and they must be clear and sharp.

Hive Mats

Attention is drawn to the advertisement for Hive Mats in this issue. A new arrangement has been made with the manufacturers and orders for mats should now be sent direct to N.Z. Woolpack and Textiles Ltd., Box 44, Foxton, and not through the General Secretary as formerly.

Obituary

Mr J. DRUMMOND

Mr James Drummond, well known in former years as a commercial beekeeper at Glenomaru, in South Otago, died at Dunedin on October 2, aged 73. Mr Drummond will be remembered as one of the pioneers who had a genuine interest in his bees. Working at a time when conditions were often difficult he was nevertheless a grand beekeeper, a member of the Association, and noted for his generosity in giving help and advice to others. Mrs Drummond died some years ago.

CARDEA

HONEY CARTONS are PRECISION MADE

You can have complete confidence in CARDEA Honey Cartons because they are high quality containers. They are precision made to the highest possible standards and are subjected to rigid inspection and testing at every stage of manufacture. CARDEA Honey Cartons are sturdy, less expensive, have high sales appeal.

Promote your honey the modern way. Pack it in attractively designed and printed CARDEA Honey Cartons and watch your sales grow and grow!

Made by CARTON SPECIALTIES LTD., Auckland, and distributed by —

Frank M. Winstone (Merchants) Ltd.

71-79 CUSTOMS STREET EAST, AUCKLAND

South Island Representative: P. G. Collings, 33 Charlcott Street, Christchurch. Phone 29-062.

Mr. W. T. Herron

Retirement from H.M.A.

Mr W. T. Herron, of Waikaka, Southland, retired from the Honey Marketing Authority this year after serving upon it continuously since its inauguration in 1953. Prior to that he was a member of the Honey Marketing Committee which acted in an advisory capacity to the Marketing Department. Mr Herron always polled particularly well at the elections and he enjoyed the support of producers over an important and at times difficult period in the history of honey marketing.

In the south Mr Herron is even better known as a beekeeper than as an administrator. For many years a close friend of the late Robert Stewart, he maintains the tradition of good bees and good beekeeping, and a number of our successful younger producers gained their start in beekeeping with a period of training at the Greenvale Apiaries. A member of the N.B.A. for 38 years, he has been a leading figure in the Gore Branch and has done much both within the Association and in the wider sphere to raise the status of beekeeping in this country.

As Mr Herron relinquishes his active participation in Marketing administration we hope he will enjoy some well-earned relaxation and we join with beekeepers everywhere in extending to him our best wishes for the future.

Personal

Since the Nelson Conference Mr. W. T. Herron has been in hospital for a painful knee operation which involved a lengthy period of treatment. As the Journal goes to press we are pleased to learn that he is getting around again with the aid of a walking stick and has been able to do the queen rearing work in the apiary. We wish him a good recovery and hope the operation will be fully successful.

We also extend best wishes to Mrs. T. E. Pearson of Darfield who recently spent some weeks in hospital with a severe illness. Towards the end of August, prior to entering hospital, Mrs. Pearson gave a broadcast talk over the Christchurch Women's Session on the lot of a beekeeper's wife. We have learned from various sources that she handled the talk in splendid style and it brought forth many favourable comments from listeners.

U.K. HONEY MARKET

New Zealand white clover honey is finished for this year on the United Kingdom market, so far as forward shipment is concerned, the Produce Department of the Bank of New Zealand reports from London, 28/9/61. Small spot stocks are bringing 180/- to 185/- per cwt. Extra light amber grades are quoted at about 160/- to 170/-. Depending upon quantity and grade, light amber ranges from 120/- to 125/-, with some lower prices for special offers.

H.M.A. Regulations

Voting Qualifications

In 1956 the Honey Marketing Authority Regulations were amended so as to assess a producers voting qualifications on his average supply of honey or purchase of seals over the preceding two years. It has now become apparent that this new provision is being interpreted so as to exclude from the roll a producer who supplies honey or purchases seals in only one of the preceding two years. As this is entirely contrary to the intention of the amendment a request has been made to the Minister of Agriculture (the Hon. T. L. Hayman) to have the Regulation re-drafted to make the intention quite clear.

The executive has also decided to ask that the Regulations be amended to permit packers to furnish a declaration of honey supplied to them by producers, when requested to do so by the individual producers concerned.

Reply from Minister

CONFERENCE REQUEST FOR FUNDS

Office of the Minister of Agriculture,
Wellington,
August 24, 1961.

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

Dear Sir,—

I have your letter of August 1 informing me of certain resolutions passed at your Association's recent annual conference for an increase in the Association's expenditure, to be financed by an increase in the contribution from the seals levy fund.

Your Association's intentions of widening its claims and increasing its services to members are worthy of every encouragement. You will, however, appreciate that the Honey Marketing Authority, which administers the seals levy fund, should be consulted before any change in the Regulations which would increase the contribution to your Association from the levy is considered.

The Government would need to have an assurance from the Authority that if this additional contribution is granted, without any increase in the rate of the seals levy, it would not impede the Authority in the exercise of its functions nor impair its financial stability.

It is noted that you have referred to the Honey Marketing Authority a copy of your letter of August 1. I will write to you again when the Authority has given me its views on the proposal.

Yours faithfully,
T. L. Hayman,
Minister of Agriculture.

"Bacillus Larvae"

Mr. R. A. Fraser,
General Secretary,
National Beekeepers Assn. of N.Z.
P.O. Box 19, Foxton.

Dear Mr. Fraser,

Re the Term "Foul Brood"

The decision made at the last Annual Conference of your Association to ban the name "Foul Brood" from the publications of the Association has been noted.

Your Association's request that the Department of Agriculture also refrain from using the term has been considered. The Department has no objection to the name "Foul Brood" being abandoned, and the terms American Brood Disease (Bacillus larvae) and European Brood Disease (Bacillus pluton) will be adopted when specific references are made to these bee diseases.

So that this will become standard practice, Apiary Instructors and other officers concerned have been advised accordingly.

Yours faithfully,
A. M. W. GREIG,
Director, Horticulture Division.

Where Shall I Sell My Honey Crop ?

A MESSAGE FROM THE DOMINION EXECUTIVE

In the beekeeping industry our marketing system has been designed to provide satisfactory channels for the sale of honey and to give the producer freedom to choose the particular channel which will suit him best. He may sell his crop in bulk to an established packer or he may pack it himself for the distributing trade.

The general buoyancy of the market depends largely upon the quality and dependability of the packs which are offered for sale. Usually the consumer is prepared to pay a fair price provided his experience gives him confidence in the brand which he buys. It follows that every packer shares the responsibility of setting a standard of quality which will safeguard the reputation of our product and of maintaining a price which is sufficient to support a sound and progressive industry. In contemplating the marketing channels which are open to him the beekeeper should give careful thought to this responsibility.

Packing honey to meet today's requirements has become a highly specialised business. To be successful a pack must be consistent in flavour, colour and texture, and a regular supply must be kept up throughout the year. This involves the installation of proper equipment, including processing tanks, fillers and refrigerated storage, a knowledge of the physical properties of honey, and the business ability to organise and carry out a marketing program. Other factors which must be taken into account are the time required, the packing loss between bulk and retail containers, and the distraction from the real business of honey production. Many beekeepers, too, find that their honey varies in quantity and quality from year to year and this adds to the difficulty of maintaining a continuous and consistent supply. It should be remembered that when a housewife buys a honey which does not appeal she rarely throws it out but waits until it is slowly used up, and then it is with diffidence that she buys again. In this way the whole market suffers.

In order to build up an efficient service and keep abreast of modern trends the packer must also obtain a fair price for his product. The price schedule contained in the current Price Order is based on actual costs and if it is not observed in full the status of the industry and our standard of living will inevitably fall.

Beekeepers who find difficulty with the technicalities of packing might well consider confining their whole attention to the production of bulk honey. A beekeeping unit which is free from the complications of packing can be larger in scope and simpler in operation, the beekeeper is able to concentrate upon the seasonal operations in hand, and the work is more rewarding in its opportunities for relaxation. In the Honey Marketing Authority we have a pooling system with large-scale blending and packing facilities and connections with both overseas and local markets. This organisation is able to accept all marketable honeys and dispose of them, either blended or in straight lines, to the best advantage.

This message is not an appeal to beekeepers to supply the Marketing Authority. It is an appeal to beekeepers to handle whatever market is chosen in an efficient and proper manner. The freedom of the producer to choose his own market, which he at present enjoys, is a safeguard to the efficiency of our industry and is a right which beekeepers should cherish. If we can exercise this right with a sense of responsibility we will advance the welfare of our craft and all who are engaged in it.

EXECUTIVE MEETING

A meeting of the Dominion Executive was held while members were in Wellington to attend the joint discussions with officers of the Department of Agriculture on October 16 and 17. All members were present, the Editor also being in attendance. The President, Mr J. R. Barber, was in the chair.

The business included a review of action and correspondence arising from the 1961 Conference, and the following were among the matters receiving attention:

Extension Program

The meeting considered the program of improvement and extension in association activities, as laid down at the 1961 Conference. Members expressed some diffidence at embarking upon further commitments when the finance available for administrative services was inadequate to maintain even the present scale of activity. However it was agreed that the aims should be investigated and plans made to implement them as far as funds might permit. The General Secretary was therefore requested to prepare material to assist Branches in defining their objectives and planning to carry them out.

As a further step, at the next Executive meeting reports based upon Branch discussions are to be presented, dealing with the following projects: "Educational Sessions and Courses in Beekeeping" (to be prepared by Mr. J. W. Fraser), "Bursaries and Field Scholarships" (Messrs T. S. Wheeler and J. D. Lorimer), and "Participation in International Beekeeping Movements" (Mr J. McFadzien).

Marketing

Mr Barber reviewed the actions taken by the Marketing Authority at its recent meeting, particularly the decisions on final payments for last season's supplies and the conditions of supply for the coming year.

Comment was made that this was the first occasion upon which the Authority had been able to pay suppliers the maximum figure allowable under the Pride Order (but only, of course, for 100 point honey). Some members expressed concern that the Price Order allowance for packing costs would not give packers a sufficient margin if they had to pay the full price for bulk honey, and it was feared that the present marketing pattern might be seriously disturbed. A long discussion ensued on how best to safeguard the interests of established packers, but it was generally agreed that producers should not be denied the maximum permissible return for bulk supplies. After considering the matter fully the meeting eventually decided that the only logical course, in view of the new situation which had now arisen, was to seek the removal of price control. A request for de-control is to be made accordingly.

Orchard Pollination

At the invitation of the Executive the Secretary of the N.Z. Fruitgrowers' Federation, Mr B. R. McLaren, attended the meeting to discuss the problem of orchard pollination, particularly as it applies in Nelson. It was pointed out that honey production had become more difficult in that area and it was no longer profitable for apiarists to provide bees for pollination on the former basis. Consequently beekeeping was likely to decline still further in Nelson unless a more satisfactory arrangement could be reached, preferably by agreement between the fruitgrowers and the beekeepers organisations.

It was decided that the General Secretary should write to the Federation confirming the points which had been raised, and Mr McLaren undertook to bring the matter before the Federation at the earliest opportunity.

Commission on State Services

It was decided to submit evidence to the Royal Commission on State Services outlining the value of the beekeeping industry, the importance of adequate staff for research, instruction and inspection work, and pressing for a revision of the salary scale to bring beekeeping into line with other sections of primary industry.

Conference Procedure

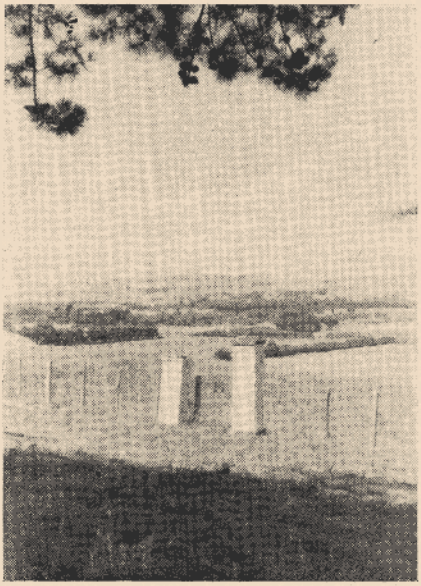
The meeting considered a resolution from the Canterbury Branch recommending that Conference be given the option of discussing any remit either by group discussion or by plenary sessions. It was pointed out that Conference already had this option, and the Branch is to be advised accordingly.

Bank Overdraft Fee

A strong protest is to be made to the Associated Banks against the recently-announced overdraft service fee. It is felt that this fee will be a severe and unfair handicap to business units requiring legitimate short-term financial accommodation.

Honey on Grapefruit

Cut the breakfast grapefruit in half. Separate the segments and then press the honey well in with the edge of the spoon and let it stand for a few minutes—delicious.



These hives, belonging to Mr. H. L. Pinfold, look across pleasant country towards Pahiatua.

—Photo by Sefton Line

HONEY MARKETING AUTHORITY

CHAIRMAN'S REPORT

The Authority held a two day meeting in Auckland commencing on October 10, when the Pay-out for the past season was decided and the Conditions of Supply for the coming season were established.

By the time this is read, all suppliers will have received their final payments and it is satisfying to note that the average payout is the highest ever recorded and, in the case of top grade honeys, reached the maximum permissible under Price Order.

A new departure in arriving at the figure for bonus payment has been a division of categories. These divisions have been made in accordance with the overseas prices ruling and an honest endeavour is being made to make a return to suppliers commensurate with realisations. It may take a while to get this procedure into its true perspective but it is increasingly obvious that some adjustment in procedure had to be made to keep in line with the current trading trends.

The Markets

The overseas market continues to be very good for white clover honey but unfortunately the supplies available have now been exhausted. Honey in Southern Depots is now reduced to 3½ cases but we have nearly 7,000 cases of the darker honeys in the Auckland Depot. Whilst our Agents have been securing very good prices for limited quantities of these honeys, we are anxious to make a considerable clearance before any deterioration in quality sets in, and our Agents are making every endeavour to meet our wishes. Lower prices must be expected for these grades.

New markets have been broken into in Norway and Vancouver and we await developments with interest. The market for packed retail containers in the East remains at a steady rate and is absorbing a worthwhile quantity of honey.

The Authority is of the opinion that it is vital to obtain closer relationships with the established and prospective overseas markets and with this aim in view your Chairman is being sent overseas next autumn. Imperial Bee continues to enjoy a steady sale and HoneyGold sales have been increased considerably.

Price Differential for White Honey.

Painstaking efforts have been made to secure some redress in this matter and after receiving the latest information from the Trade Practices Division it was decided that the only practical solution was decontrol of honey prices and a new application has been lodged accordingly.

Extra Grant to N.B.A.

This application was fully examined and it was agreed that extensive further consideration would have to be given to the matter. It was however agreed that some small immediate relief was needed and a recommendation has been made that the Regulation be amended to provide for an extra £300.

Bulk Containers

The revolutionery bulk container on which we all based so much hope has not been at all favourably received by buyers in London, in fact the comments received were most discouraging. This coupled with the stacking problem has forced us to discontinue efforts with this particular idea. We will continue to seek a solution of the problem.

Seals Levy Alteration

A draft copy of the proposed alteration has been received from the Law Office and it is hoped to have the new regulations in force by the end of the year. Packers needing large quantities of containers are asked to get in touch with the Manager before ordering from manufacturers.

The Factory Plant

The new packing set up is working very well and it is a real asset to the industry. We are continuing to make modifications and improvements when possible and should soon be nearing the end of the immediate problems.

The Future and Conditions of Supply for Coming Season.

It has become increasingly obvious to the Authority that we have been encouraging the production and supply of some honeys without proper regard as to what we can sell them for. To make a complete change in one season to rectify this position would, we think, place difficulties in the way of certain producers and unduly upset the balance of supply and packing that has been achieved over the years. However we must buy on the basis of what we can sell for and not vice versa. The recent final payment will give an indication as to where these margins lie and beekeepers producing these grades of honey must be prepared to accept lower prices. It is evident that a demand exists for comb honey and consideration should be given to channelling some of this production into either section or cut comb.

The new conditions of supply provide for a minimum of colour and flavour that will be accepted for pro-rata payment and producers should use every endeavour to up-grade their product. The accent is on colour and we urge the utmost care in the heating and melting of all honeys.

October 12, 1961 G. E. GUMBRELL, Chairman

CONDITIONS OF SUPPLY FOR COMING SEASON

Advance Payments

(a) Preliminary Advance—Payable on application and declaration on honey as soon as it is tinned in the suppliers' shed. £1 per tin.

(b) Depot Advance—This will be paid automatically on all honey received into Depots other than Auckland upon receipt of the Depot's form of receipt. £1 10s. 0d. per tin.

(c) Pro-Rata Advance—Payable on grading—11d. per lb pro rata.

(d) Manuka—Payable on grading—6d. per lb flat.

(e) Kamahi—Payable on grading—7d. per lb flat.

Liquid Honey:

The liquid honey penalty of ¼d. per lb is retained but in the case of personal deliveries to the Auckland Factory, where special arrangements have been made with the Manager liquid honey will be accepted without penalty.

Tins:

It has been decided to insist on a standard opening for the 60lb tin being a 3in screw on cap with a plastic insert. Provision is made for a 12 month period in which to effect this change over.

Minimum Pro-rata Grading:

Any honey grading under 30 colour and/or 75 flavour will not be accepted under the pro-rata grading but will be the subject of straight purchase.

Low Specific Gravity:

The penalty of ¾d. per lb on honey under 1.420 s.g. is retained.

G. T. GOSSE, Manager

Department of Agriculture

Horticulture Division

'Bacillus Larvae'

During the past year or two members of the Executive of the National Beekeepers' Association and the Director of the Horticulture Division of the Department of Agriculture have expressed concern regarding the serious brood disease of bees, Bacillus larvae and whether existing methods of detection and control of the disease were adequate.

Following further discussion at the 1961 Conference the Executive approached the Minister of Agriculture the Hon. T. L. Hayman, requesting him to convene a joint meeting of departmental officers and the Executive of the N.B.A. at which the matter could be frankly discussed and an endeavour made to overcome the problems which stand in the way of disease eradication. The Minister acceded to this request and a joint meeting was held during the afternoon of Monday October 16, and all day on Tuesday, October 17, 1961, at the Avon Building, Lambton Quay, Wellington.

In convening the meeting the Minister indicated that the Director of the Horticulture Division, Mr. A. M. W. Greig, would be Chairman and he would discuss with the Executive the scope of the meeting and the draft agenda before the meeting commenced. This preliminary discussion took place on Monday morning, October 16, and there was general agreement on the coverage and draft agenda. When the meeting assembled in the afternoon it was seen that there was practically equal representation from the National Beekeepers' Association and the Department of Agriculture but the Chairman in commencing procedures made it perfectly clear that this was a mutual problem concerning all present and everyone was asked to contribute to the discussions on the basis of his personal knowledge and experience. In fact the seating arrangement for the meeting was so arranged that no two departmental or Executive members were seated together. In addition to the Chairman there were preesnt:

Messrs. E. Smaellie, Superintendent, Beekeeping Industry; J. W. Fraser, N.B.A.; L. H. Johnson, Apiary Instructor, Palmerston North; D. F. Penrose, N.B.A.; L. A. M. Griffin, Apiary Instructor, Christchurch; J. McFadzien, N.B.A.; T. S. Wheeler, N.B.A.; I. W. Forster, Apiary Instructor, Oamaru; J. K. Bray, N.B.A.; R. S. Walsh, Former Honey Grader, now Apiary Instructor, Auckland; J. D. Lorimer, N.B.A.; T. Palmer-Jones, Bee Research Officer, Wallaceville; R. A. Fraser, General Secretary, N.B.A.

The Chairman indicated that the purpose of the meeting was to review existing measures for the control of Bacillus larvae, to draft and consider improved measures, and to consider the effects of any proposed alterations on the Apiary Section of the Department of Agriculture in relation to the general services it provides.

A description of Bacillus larvae followed and members contributed in regard to its recognition in the field and whether every beekeeper was qualified to recognise this disease in his apiaries.

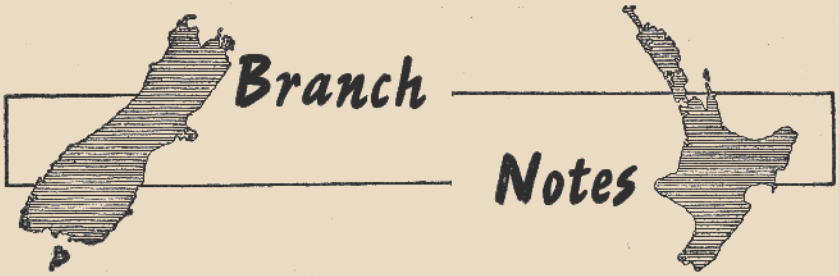
Consideration was then given to the existing measures and shortcomings, a start being made with the individual beekeepers of the personal responsibilities in inspection, reporting the disease and destruction when found. Part-time inspection was covered in relation to the personnel offering, the method of selecting qualified beekeepers to act as part-time Apiary Inspectors, the normal plan of work in a district whether on an annual basis

or of a duration of three to five years, the extent to which plans were normally implemented and the difficulties being faced in the administration of part-time inspection. The responsibilities of Apiary Instructors both in relation to part-time inspection and to inspection during the rest of the year were also dealt with, and whether the finance available was being wisely spent and adequate.

The drafting of procedures for the future then received careful consideration, commencing with the beekeeper himself, his ability to identify disease, his personal responsibility to inspect all his hives in certain months of the year and his responsibilities in reporting the disease if found and the steps he should be required to take in destruction. The role of departmental staff and beekeepers acting as part-time Inspectors employed by the department was considered as a check inspection procedure. The reporting system when disease was found and destruction of hives under supervision was reviewed. Consideration was also given to the question of ways and means of obtaining better understanding of this problem by all beekeepers and means of obtaining the fullest co-operation, the legal action which might be necessary where a beekeeper failed to meet his obligation under the law, and the question whether the Apiaries Act or amendments thereunder required modification was considered by the committee. Whether it was feasible to eradicate this disease from the country or parts thereof received attention and the manner in which revised plans should be implemented also received attention.

From the above review it can be seen the problem of Bacillus larvae in New Zealand was very carefully considered. As the meeting was convened by the Minister the report must be presented in the first instance to him, and should then be available for release to the National Beekeepers' Association through its Executive. No comment regarding the findings are therefore available as this issue goes to press.

A. M. W. GREIG,
Director, Horticulture Division



SOUTH AUCKLAND

The 1961 officers have been duly appointed, and the Membership and Publicity Committees are in gear again with Athol Forsyth as organiser. The five minute talk, which has been going for a year now, has become one of the bright spots of our meetings. Two meetings back, Alf Bennett produced a hive tool with a lug welded to it to prevent stubbing your thumb when separating stuck hives, a smoker with a hook to hang it on a hive, and a bottom board with four lugs to stop the hive skewing, while last meeting Les Gera demonstrated a bottom board with a wide back cleat and a permanently fixed entrance block. By sliding the hive forward an inch or so the entrance opened to its full size. He also produced a simple tool of 5/16in steel rod for tightening wires round hives for shifting, superior in my opinion to the expensive strapping and wire tying machines.

The Branch wishes Les the best of luck with his shift to Te Kuiti. So also to Robin Jansen who is settling in Taupo. (Lookout Southland, here we come!)

Two prominent Branch members recently expressed opposite views regarding the proposed increased grant from the seal fund to the N.B.A., and on the suggestion of a merger of the N.B.A. with the H.M.A. (Mergers are very fashionable nowadays.)

The bees are stronger now, at the end of October, than they have been for the last three years. There are fewer losses after a very mild winter, and a good supply of feed honey is still to hand. The fortnight of dirty weather usually experienced in October is either late, or has been blasted off course by the Russians.

—Alistair Fleming

HAWKES BAY

By the time this is being read we hope to have held a field day at Mr. and Mrs. L. Maultsaid's home.

We plan talks on spring hive management, queen rearing and the disposal of Bacillus larvae.

After a particularly wet spell which has written off hundreds of peach trees and sadly affected the plum crop, within one month, properties are being irrigated and there are signs of a hot spring. —Gwen Dorward

WEST COAST

The warm dry February and March made it difficult to raise autumn queens in most Coast areas. There was practically no flow and Lotus Major failed completely, and the bees were not in the mood.

Winter was perhaps colder than usual but short and in many yards one could find a good patch of brood in July. Rata vine was in evidence from May to August, Clematis in September and the Lawyer in September and October. We saw many really picturesque clumps of this oft-cursed vine.

Fuchsia, of which there are many species, has not been good. I did not see any purple doorsteps (entrances) this season, but must admit that all my colonies have more than ample pollen supplies.

Tawa and Kamahi start any day now so let us hope that some rain falls this next month or there will be some real strong honey. In my experience the dryer the period the stronger the honey. Because of the unusually good spring most colonies are very strong. Many are at the stage where if the beekeeper has not extra stores a wet fortnight could be the end of them.

Springtime brings to mind a story about the late Gardner Shepherd who

was an apiarist-farmer-bushman living beside the housing settlement at Rutherglen. Time: a sunny spring morning. Shepherd standing on the hillside directing his dog as it brought up the cows. A neighbouring housewife was gathering in some washing that had been on the line overnight and observed with disgust some yellow spots on the clean linen—obviously from the spring flights of the bees. She looked across at the cows affected by spring grass and yelled at Shepherd as she headed for the house, "Gad, Shepherd, its a good thing those cows can't fly!" —Tom Holland

SOUTH CANTERBURY

The Otaio Gorge picnic ground provided an ideal setting for the Field Day on November 4. The children disported themselves in the stream, the women folk sat in the shade of the trees, and the men adjourned to one of Davidsons' Apiaries not a hundred yards away. Mr. Arnold Simpson was the master of ceremonies.

In alluding to the irregular placement of the hives, Mr. Bob Davidson said that this was intended to prevent the drifting of bees. The only disadvantage was that the beekeeper is apt to lose his bearings and after he has turned round a couple of times he gets properly bamboozled.

By the time a few of the experts had demonstrated their systems of dividing, uniting, and manipulating for various purposes, the general confusion was about complete, and Bob and his men will find much to interest them at the next visit.

With the spirit of Guy Fawkes in the air all hands gathered round at a safe distance while Kevin Ecroyd lit a few vigorous fires and promptly blew them out again with two different models of fire extinguisher. A good investment for the prudent beekeeper.

Propionic Anhydride

Mr. Ivor Forster described initial trials which had been made in driving bees from supers of honey by means of Propionic Anhydride. This chemical has been hailed in America as the answer to the problem of super clearing, and is harmless to bees, honey and humans.

Two samples of Propionic Anhydride were obtained, one from within New Zealand and the other from Australia, and the tests were carefully made. Unfortunately there was not the slightest response from the bees. They would not even retreat from the top bars. Further inquiries are being made to check up on the identity and characteristics of this material and the methods of using it.

Crop Prospects

An inquiry directed to Mr. Davidson elicited the opinion that "crop prospects are bright but we must have rain and plenty of it for the light land. The heavy land is in very good heart and rain in December will ensure a good crop in this type of country. October has been a wonderful month for beekeepers in South Canterbury. An excellent willow flow surrounded by the best native bush flow ever, and this bush flow should last well into November. Even the older members of our Branch admit that this just might possibly be 'The Year'."

We all hope that Bob's prediction will come true. —J.McF.

NORTH OTAGO

Mr W. Irving presided over a fair attendance of members at a recent meeting in the Oamaru Library Rooms.

Mr H. S. Wilson, of Elderslie, gave a full report of the Conference held in Nelson, at which he was Branch delegate.

The Branch decided to send a letter of congratulation to Mr. C. R. Paterson, of Hamilton, who was made a life member of the Association at Conference. Mr Paterson was a prominent beekeeper at Corriedale for many years and he brought into being the North Otago Branch by calling the first meeting on October 3, 1928. At this meeting Mr O. Wylie was elected president and Mr. Paterson was elected secretary, a position he held until he left the district 10 years later.

Mr V. Cook, Apiary Instructor at Oamaru, gave a very interesting talk on beekeeping in England. There it is dominantly a hobbyist pursuit and provides a fascinating interest for many people from all walks of life. Mr Cook, who had wide beekeeping experience in England before coming to New Zealand, said there are few large-scale commercial beekeepers in

A group at the 1961 Dominion Conference. From left: Messrs Norm Tuck (Waikato) Basil Jones (Dannevirke), Charlie Barrow (Tauranga), Alex Hewlett (Nelson), Wally Baxter (Hororata).—Nelson Photo News.

England, and no organised beekeeping industry such as we have in New Zealand. Nevertheless, the British Government has long recognised the importance of honey bees as pollinators, and even during the last war, when food rationing was very severe, bees were regarded as being so important that beekeepers received a special sugar ration for feeding their bees.

Mr Cook said that whereas many commercial beekeepers tend to regard the hobbyist as being unimportant he felt it should be remembered that much of our present-day knowledge of bees and beekeeping is the result of the observations and experiments of hobbyists. Mr. Cook ended his address by giving an interesting account of his experiences while working with Bro. Adam at Buckfast Abbey in Devon. Bro. Adam, who is a Benedictine monk, is a world authority on bees, and he is particularly well known for his work over many years in breeding improved strains of bees.

Prospects

The stage is set for an average season in North Otago. We had good rains in the winter and odd showers since, with perfect weather for the willow flow and mating of early queens. There is feed everywhere and the first clover flowers are showing their pretty little heads. We only require the heat at the proper time to produce that big crop that is just around the corner.

Field Day

Our Field Day is to be at Five Forks at one of the writer's yards where Ivor Forster and Vince Cook are carrying out some tests and experiments. It is to be on February 24, 1962.

—Stan Wilson

SOUTHLAND

The Field Day will be held at the apiary of Mr A. W. Cranstoun, Hamilton Burn, Mossburn, on January 27, 1962. Turn left from the -Gore Te Anau highway at Mossburn and proceed about five miles south on the Wreys Bush road. All welcome and a pleasant day is assured.

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Honey Packing Problems

An address by Mr. R. S. Walsh, at the Nelson Conference, July 1961

More packed honey is sold today than ever before, and a very large selection is available to the public. Twenty-three different brands are on offer in one Auckland store. Of forty-six samples of this honey tested for moisture content, only twenty-nine were within the permitted maximum specified in the Honey Export Regulations, 1950. Because of higher moisture contents the remainder of these samples would not have passed the grader as suitable for export.

Sterilisation

I have frequently stated that cartons are not a good protection for honey, particularly creamed honey in the Auckland climate. Bottled honey with plastic caps does not keep well either. This is one of the reasons why I have always been a strong advocate for the sterilisation of honey. If producers supplying the northern market would take this precaution the keeping quality of their honey, however packed, would be greatly enhanced. Sterilisation of honey is brought about by heating either at 145 degrees fahrenheit for 20 minutes or 160 degrees fahrenheit for three minutes. The former method of treatment should not be difficult for most producers and packers.

Heat Exchanger, Pressures, Flow Rates

The Honey Marketing Authority achieves flash heating and sterilisation by means of a Plate Type Heat Exchanger similar to that used by the Dairy Industry. This equipment makes possible a continuous system from the initial melting to the packing machine. In practice the honey is pumped into the heating section of the pasteurizer in a thin layer approximately 1-20 of an inch in thickness. It passes between sets of corrugated plates while hot water is pumped into a counter flow through the space between alternate plates. The honey, heated to 160-170 degrees fahrenheit flows into a holding tube and passes through the cooling section where the temperature of the honey is reduced to 80 degrees fahrenheit. High pressure plates especially adapted for honey, are necessary in dealing with honeys low in moisture content. Honey of 19 per cent moisture exerts a pressure of 22 pounds per square inch, 17 per cent moisture, 32 p.s.i. and 15 per cent 42 p.s.i. Thus the pressure exerted by a honey of 15 per cent moisture is almost double one of 19 per cent.

An understanding of the pressures exerted by honeys of various specific gravities and the flow rate is important in the manufacture of processing machinery. Even such familiar honey house operations as extracting, pumping and settling are dependent upon flow rate. For example, a honey with 19 per cent moisture flows five times as rapidly as one of 15 per cent at 100 degrees fahrenheit. Here again we have this great contrast at 19 per cent and 15 per cent moisture. Similarly, at 17 per cent honey flows more than twice as fast at 120 degrees as at 100 degrees fahrenheit, and three times as fast at this temperature as at 80 degrees fahrenheit

Types of Honey

Beekeepers producing similar types of honey year after year will have learned from experience just what is required in the processing and packing of their honey for the retail trade but those packers buying honey from various floral sources produced in areas remote from their own districts will find it much more difficult to maintain a uniform pack. This has always been a problem to the H.M.A. Much more so, I think, than most beekeepers realise. Some honeys have crystals so large and coarse that it would appear almost impossible to dissolve them without use of excessive heat. Another type of honey will not granulate, another is so muddy in appearance that it cannot be used other than in very small quantities in blends, yet another appearing entirely normal until melted is found to be an unblendable jelly type. Then there is the kind that develops the most unappetising smell when heated and so on. However over the years, with experience the

blender learns to recognise most of these honeys and how to deal with them.

Influence of Crystal Type

Coarse grained honey requires more heat than fine grained honey. The coarser the crystals the higher the temperature required to melt them. Granulated honey in commercial quantities cannot quickly be rendered liquid what ever the amount of heat used and as it is the length of time honey is held at high temperatures rather than the temperature itself that deteriorates its quality, honey should be melted at as low a temperature as possible and then quickly raised to the temperature necessary to melt out the crystals. This may be as high as 170 degrees fahrenheit for 10 minutes. Always remembering that gentle agitation is continually necessary. If the honey is high in dextrose sterilisation temperatures will be sufficient to dissolve the crystals but with levulatory honeys higher temperatures are necessary, although prolonged heating is unnecessary, but rapid cooling is and it is most important that temperatures be dropped as quickly as possible.

Yeast Development

Once honey has been sterilised it takes a considerable time for yeasts to develop to the point where fermentation will occur. Even honeys with a moisture content above the permissible 1.420 specified in the Honey Export Regulations 1950, can, by blending, be packed quite safely for the local market provided they have been properly sterilised. Ordinary yeasts do not cause fermentations in honey because they cannot grow in high sugar concentrations, neither is spoilage by bacteria possible because of the high acidity of honey.

Fermentation is brought about by the action of sugar tolerant yeasts upon levulose and dextrose resulting in the formation of alcohol and carbon dioxide.

Blending Dark Honeys

If care is given the selection of flavours in either blends or straight lines the darker packs will increase in favour with the consuming public. In my opinion, many people who prefer a more pronounced flavour buy white honey in preference to dark honey mainly because they feel confident the flavour will be palatable although not just what they would prefer.

Using darker honeys to prepare a blend that is not too dark and reasonably mild in flavour is not a simple task, yet by discreet and careful selection of lines it is surprising what can be accomplished.

A blend of all dark honeys will produce a finished product of medium flavour as the flavours even out and the more pronounced flavours are tempered by the blend. Few people appreciate the flavour of pennyroyal honey yet blended with pure rata a very pleasant light coloured honey is produced. North Island Manuka honey is unblendable once it has granulated but if blended when freshly extracted no difficulty is experienced and blended with any of the milder honeys an excellent flavour results. Buttercup and barberry are two of the milder flavoured dark honeys from which pleasant flavoured blends can be developed. Care is necessary in using buttercup as it has rather a wide colour range. I have known it register as low as 10 points on the Pfund Colour Grader.

In general a light coloured blend must consist mainly of light honey although some mild flavoured dark honey may be used. The limits, however are very narrow. Dark honeys are so often pronounced in flavour and it takes very little to influence a blend.

Another difficulty with the stronger flavoured honeys even when light in colour is their tendency to eventually predominate the blend although not apparent when packed. Light amber blends are best confined to light amber honeys as the use of dark honey must be compensated for by using considerably more white honey than is economically sound.

Air Bubbles

Excessive stirring of dark honeys in order to give them the appearance of lightness is not good practice, is illusory and creates excessive quantities of air bubbles. It is essential that as little air be introduced into honey as possible. Air bubbles harbour yeast cells and is responsible for lowering

the specific gravity of honey. Care is necessary to ensure that containers filled with honey of this type are not underweight.

Starter

Packers should take great care with the "starter" honey they use. Poor quality "starter" can create favourable conditions for the development of fermentation. It can also cause sourness in honey, particularly when used extensively in creaming processes. "Starter" should be specially prepared from sterilised honey "started" with a small quantity of the current season's crop and should be kept in the cool room until required. Usually each fresh tank of honey is "started" by leaving a small quantity from the previous tank.

This is preferable to using old "starter" of doubtful quality but cannot be guaranteed to consistently produce fine grained honey. Each new tank of honey should have some fresh "starter" added otherwise each successive tank will receive proportionately less of the original "starter" until it is exhausted. Although this is not so important with pure clover honeys it is essential with most northern honeys.

In conclusion, I would like to make a suggestion to all beekeepers and packers retailing honey in the North Island in ½lb cartons. I know they cannot be reamed, but do at least use paraffin wax as a sealer for the lids. Many of the cartons I have examined in the past two years have shown some evidence of fermentation.

Spacing of Apiary Sites

(From an address by Mr. G. L. Jeffery at the Dunedin Convention on June 6, 1961)

What we really require in siting apiaries is to obtain the maximum amount of honey and also give a good pollination service. To find out what hive concentration this will involve we can make use of our experiment on the pollination of white clover.

In this experiment we dealt with the acreage of clover actually in flower and generally found it to be about one-fifth of the total area of countryside available. When we stock at the rate of one hive per acre of flowering clover we can expect hives to gather winter stores but little extra. In this case about 95 per cent pollination of white clover is achieved.

Because no surplus honey can be expected a farmer must be prepared to pay a substantial fee for pollination if he requires this concentration.

If however we stock at the rate of one hive to seven acres of flowering clover we should obtain a maximum crop while still giving reasonable pollination in the region of 80 to 90 per cent.

Of course, if we had more clover per hive a larger crop could sometimes be obtained but the pollination would be very low and would not satisfy the farming community.

Where a number of beekeepers are working the same area under pressure due to lack of sufficient room elsewhere stocking usually reaches one hive to 7 acres and sometimes is as high as one hive to 3 acres of flowering clover. In this latter instance however, the crop is usually lower than in the less stocked areas.

For a hive to have seven acres of flowering clover available there has to be approximately 35 acres of general countryside for each hive. This would mean 15 to 20 hives would normally have sufficient pasturage in a square mile of countryside.

Now, from these results we can work out reasonable distances that have to be maintained between apiaries.

I myself always consider 15 to 20 hives in an apiary as a reasonable working unit and under these circumstances apiaries should not be less than one mile apart to ensure the maximum crop. In the areas where farmers have encouraged apiaries to be placed as close as half a mile instead of half the hives being kept only ¼ of the original figure or approximately 5 hives should be maintained in each apiary. I am referring here to where apiaries are half a mile apart in all directions not where two isolated apiaries happen to be within 1 mile of each other.

If beekeepers want to keep apiaries further apart, hive numbers in each should be increased accordingly, for example at 1½ miles between, up to 50 hives per apiary and at 2 miles up to 70 or 80 hives per apiary will be needed to reach the same stocking level as 20 hives at a mile apart.

Because bees do not economically work clover as a general rule over 1 mile from the hives I can see no justification for insisting on more than 2 miles between apiaries.

Over the last few years there has been a rapid increase in hive numbers in clover areas in the South Island. This has resulted in the need for new sites among those already established. As a result, in some areas hives are definitely stocked to a higher level than is desirable and crops are tending to drop as a result. This is especially in evidence in parts of Canterbury.

I believe that much of the overstocking could have been avoided if beekeepers had been more co-operative.

I have spoken to many who placed hives too close who would have readily shifted their hives if this had been pointed out to them reasonably but because of the disagreeable attitude of the other beekeeper concerned they have left them where they were.

With a bit of co-operation there need not be arguments about over-crowding in Otago and Southland until the existing vacant areas are adequately stocked. The better beekeeper because of high efficiency in his occupation will always make a reasonable living and need not worry unduly about over-crowding as inefficient units will not be able to keep going if crops fall too much and a balance in hive numbers will eventually be reached and maintained.

NOTES for BEGINNERS

By 'SKEP'

UNDERSTANDING THE IMPULSES

In our previous article, we discussed the points in Choosing the Breeder Queen. We must now consider the Impulses that drive a colony to raise queens.

For the hobbyist beekeeper the raising of queens is an aspect of his hobby with which he likes to experiment, and there is considerable satisfaction if his experiments are successful.

To progress from honey-raising to the more complicated aspects of beekeeping, it is necessary to venture into Queen-raising where there is a wide field for experimentation and study. There are just a few books on the subject and a study of these helps to save a lot of wasted time and effort.

Why do bees raise queens? Like every aspect of beekeeping, it is necessary to approach the subject with a continual Why? Why? Why? After understanding why the bees behave in a certain way, it is possible to encourage them in their behaviour and thus obtain the end result that is desired.

To raise queens, it is necessary to have an understanding of the life cycle of the bee and the impulses that drive a colony during those crises which arise in a colony to make a new queen necessary.

By creating those crises artificially, queen-raising is made possible and the more complete the understanding of those crises and their use, the easier queen-raising becomes.

Why do bees raise queens? Bees raise queens because they are impelled by an urge—an impulse—and if they are not inspired by this urge, the colony, under some circumstances, will die out. Queenless colonies can become drone-filled colonies and the drone collects no food to keep himself or anybody else alive. When a colony loses its queen and loses its urge or its ability to raise a queen, it becomes a drone-filled colony which eventually eats itself out of existence.

There are THREE impulses that cause bees to rise queens. Success in raising queens consists in artificially creating those conditions which cause these impulses, and when the impulses have been commenced, using each colony to best advantage. A thorough understanding of these three impulses makes Queen-rearing comparatively easy, and unlike other conditions that affect colony morale, they can all be created artificially.

The three impulses are: firstly the swarming impulse, secondly the supersedure impulse, thirdly the emergency impulse.

Let us now examine these three urges — these impulses — and see how they come about in the **natural** colony. We will then create the same conditions artificially and use the different impulses for different purposes to raise queens.

1. The Swarming Impulse

One means of arousing the swarming impulse is by overcrowding the colony. Perhaps the hive is too small to hold the number of bees belonging to the colony, or possibly the amount of honey in the combs, and nectar coming in, has left insufficient space for the bees to live inside the hive. Sometimes a vigorous queen has started so much brood that there is little space inside the hive to accommodate more brood and incoming stores in available space, and the colony begins to look for "more commodious premises."

The Swarming Impulse is stimulated artificially by crowding. A large number of bees of all ages is crowded into too small a chamber, fed well and given too small a quantity of brood for the nurse bees to incubate, but plenty of ventilation from outside to keep the cluster compact.

2. The Supersedure Impulse

If the queen is failing or not performing as well as the colony thinks she should, supersedure takes place. If the queen is allowing the colony morale to lower, the bees often take the situation in hand and create another queen.

The supersedure impulse is created artificially by limiting the area in which the queen can lay and keeping, in the rest of the hive, a strong force of bees that has not very much incubation work to do. The all-important factor of colony morale can be maintained indefinitely while using the supersedure impulse.

3. The Emergency Impulse.

When a colony suddenly loses its queen, the bees realise that action is needed immediately, and they begin building queen cells so that there is a minimum gap in the brood rearing. The loss of a queen in the dormant (winter) season is a tragedy if there is no brood to create into a queen cell and colonies die out for this reason.

The Emergency impulse is created artificially by removing the queen from a colony and allowing it to raise a successor. The maintenance of colony morale is not easy, and needs to be watched carefully, as it is possible for the morale to deteriorate to such an extent that it is impossible to bring it back to normal.

If we keep these three impulses in our minds and use them according to how they affect the morale of the colony we are using, the raising of queens is made much easier.

Wintering Nuclei

By J. W. Lindow, 1736 E30 Ave., Van. 12, B.C. Canada

To New Zealand beekeepers, wintering nuclei as described by Mr. H. Cloake may be a new system of management. To us here on the British Columbia coast it is old stuff, and it has its disadvantages.

For next year's colonies and for increase we start nuclei this season. But when we get a long open fall, as we quite often do, the Italians will use all the stores in raising brood and will starve. In any case if you get the latter half of the winter cold you cannot put in the extra food for brood rearing when it is needed and as a consequence brood rearing is late.

On top of this is the fact that the colony is not big enough for the early flow. In clover areas, yes. In this province there is about five weeks difference between dandelion bloom in the south and in the north. Commercial beekeepers therefore kill one half of their colonies in the fall and in the spring they move the remainder south, split the colonies into two or three with new queens from the States, and when the dandelions are over they move north again in time for the dandelions up there. These colonies build up to full size for the clover and rape in July. Over-wintered nuclei work well on this kind of beekeeping.

I get the American Bee Journal, Gleanings, the Canadian Bee Journal and the New Zealand Beekeeper. I also have the ABC and XYZ, the Hive and the Honey Bee, Snelgrove on Queen Rearing, Laidlaw and Eckert on Queen Rearing, Cook's Manual of the Apiary, F. C. Pellet's A living from Bees, Snelgrove on Swarm Control, and others.

I hope the above notes may be of interest.

(EDITOR'S NOTE: We thank Mr. Lindow for his remarks. It seems likely that the winters may be more severe in northern British Columbia than in New Zealand, but the comment is interesting.)

The War on Opossums

In view of a 1960 resolution urging the Government to adopt a killer policy to minimise the damage caused in orchards by opossums and hares, growers will be interested in the ending on March 31, last of the Forest Service Bounty system.

Some rabbit boards have already opened their programs of opossum destruction, and it is expected that by now, all boards will have assumed responsibility for the elimination of the pest.

On land not within the area of a rabbit board the campaign will be under the direction of the New Zealand Forest Services. Rates struck to pay for opossum destruction will carry a £1 for £1 subsidy and grants in addition may be made in particular circumstances.

Pilot schemes of destruction have been undertaken in Hawkes Bay and on Banks Peninsula, and the Forest Service has undertaken to make available any knowledge it has gained of effective procedures.

While the war upon the opossum is just opening, the blitz on the rabbit has still to be made more effective.

—N.Z. Orchardist, May 1961

Protection for Bees

Those who apply insecticides to crops and seed-producing areas during spring and summer are subject to obligations and responsibilities under the Apiaries Protection Regulations, 1957. The regulations relate to insect pest control measures applied to any cruciferous or leguminous crops in flower or to any such crops containing flowering plants (not necessarily crop plants) in sufficient quantities to attract foraging bees. From September 1 to March 31 it is an offence to dust or spray such crops with materials toxic to bees without a permit.

Honey in Tomato Sauce

Eight pounds tomatoes, 2lb honey, 1lb large onions, 2 tablespoons salt. 1 teaspoon ground cloves, 1 teaspoon cayenne pepper. Cover with vinegar and boil for 3 hours. This should not ferment.

Bee Stings As Arthritis Cure

Mr. Norman Dodds (57), Labour M.P. for Erith, who has been urging the Government to put "bee sting treatment" for arthritis on national health, is undergoing a series of tests at the home of Mrs. Julia Owen, at Bromley, Kent, who breeds special bees for which she claims thousands of "miracle cures."

Mr. Dodds told the "Daily Mirror": "I have been stung by 939 bees. I have osteoarthritis in the legs and shoulders and when my treatment is completed I will try to persuade the Health Minister to recognise this treatment."

The "Daily Mirror" says Mrs. Owen has failed to impress the British Medical Association that her cure has any value. An attempt to interest the Health Minister in it has also failed.

"Bee World" Abstracts

Tests made to determine whether queens suffer damage after a long interruption in egg laying.

(An abstract by M. D. Bindley of an article by R. Jordan in "Bienenvater".)

Experiments with five queens, caged for periods up to 19 days, provided no evidence that their subsequent egg laying was adversely affected. The author concludes that failure of travelled queens is due to other reasons than their confinement in postal cages.

Red Clover Pollination

(An abstract by F. E. Moeller of an article by J. A. Knierim and W. E. Dunham in "Gleanings in Bee Culture").

Red clover was shown to be by far the most important pollen plant for bees during the mid-late summer period. An evaluation of the pollen-gathering response of honeybees showed a low level of blossom coverage, and subsequently a low potential yield of red clover seeds. The nectar-gathering response of honeybees on red clover was not evaluated, but field observations indicated that it is through the nectar-gathering stimulus that a high level of blossom coverage is achieved.

The Beekeeper's Wife

From a Radio Talk by Mrs. T. E. Pearson, Darfield

As far back in my childhood as I can remember there was always a 60lb tin of hard white honey in our pantry. That was all I knew about bees. Somehow they produced this delightful rich, sweet food, which then seemed to taste of the nectar we sucked from clover florets.

On our wedding day one of my relations, the kind one meets only at weddings and funerals, said "I've never heard of one of these jokers; you'd better look out, you might get stung!"

I did get stung; not because I was poking around among the bees but because odd bees did mean things like alighting on the unseen side of the teapot handle or falling into the sink or washtub and shamming dead—but still having enough life to use that most effective and ingenious weapon, the sting, which for its weight, size and potency must rank with the atomic bomb for effectiveness. But this is a risk that the apiarist's wife has to take. However, do not imagine that an apiarist's home is continually swarming with bees. As a matter of fact an apiarist's wife leads a perfectly normal existence, considering she has taken a Bee-man for better or for worse.

Perhaps few housewives would entertain the idea of having queen bees placed in a warm linen cupboard, but this is now regarded as quite ordinary routine when the hive requeening program is in progress. I have no fears providing my husband has supervised the securing of the queens and attendant bees in their little wire cages. The piping sounds which the queens make as a challenge to combat are so familiar to me that little notice is taken of them, though visitors may raise eyebrows at this intriguing noise.

The beekeeper is a man of many moods; up in the sky with pleasurable anticipation, down in the depths of despair, hoping always for rain, for sun, for calm, for less sheep on the pastures, for deliverance from what seems a hopeless situation. His plans are so flexible as to be almost non-existent. He is as changeable as the weather, quite unpredictable, and preoccupied with many things.

However, there are many compensations, the greatest of which is the bond of friendship among the men and women who keep bees. The strangest of strange men may call at any hour of the day or night, and without further introduction—except that he is a beekeeper—is immediately welcomed into the home and accepted as an old friend.

This not only operates locally. It is an international trait and I greatly regret that over the years I have not kept a visitors' book to record the many pleasant interludes that have marked the years in our home. American, English, Scots, Irish, Dutch, Indian, Pakistani, Australian, have all passed through our ever open door. Language, social standing and customs are no barrier. The bond between the beekeepers is stronger than them all.

The older beekeeper's urge for action diminishes as winter approaches and he reaches his lowest ebb in the depth of winter. As early spring approaches he shakes himself and begins to take notice of the weather and remarks that the bees may be able to take a flight from their winter hibernation. His uneasiness increases until he can scarcely wait for the first warm spring day, and when it really comes, his youth and energy are renewed as if by magic. I pack his lunch and off he

goes leaving his winter depression far behind. The tempo increases gradually but surely. Spring with all its interest and promise passes quickly and pleasantly and then it is summer again with heat, hard toil, long days of encouragement and apprehension. Each season is different and makes its own special demands on the beekeepers' ingenuity. Activity reaches a feverish peak at mid-summer when he would like to extend each day to 48 instead of 24 hours. He seems to draw on unsuspected reserves of energy at this period due to his close association with the movement of the seasons. The whole of his energies have been focussed on developing his hives to the peak of population necessary to take full advantage of the vital three weeks in which Canterbury's main honey crop is gathered.

Honey harvesting is a satisfying work for here is reward for careful planning and long hours of toil. God's promise that so long as the earth remaineth there shall be seed time and harvest has been abundantly fulfilled over the years in which I have been a beekeepers' wife. We live happily in the rhythm of the seasons confidently realising that provided we play our part this promise is renewed with each succeeding year.

Ode to Beekeeping

"The prices are low, and the sales are slow;
My extractor's worn out and my truck won't go;
I'll sell the whole thing for what it will bring.
I'm finished with bees. I'm through.
I'm sick of the lifting, the extracting, the shifting,
And the seasons just don't run to form;
It's too hard to toss, it's just a dead loss;
Hey quick, get a box! There's a swarm!"

—Attributed to John L. Guilfoyle, in "The Australasian Beekeeper."

Mistakes I Have Made

By M. J. DEYELL, in "Gleanings"

Failure to Give Supers in Time

Failure to put on supers in the spring, or prior to a major honey flow is likely to result in congestion in the hives, which in turn, causes swarming. It seems safe to say that carloads of honey are lost each year throughout the country because bees do not have sufficient comb space for the storage and ripening of nectar into honey. It seems advisable to err on the side of safety and have a few too many supers, rather than too few. It is amazing how quickly populous colonies will fill supers when conditions are favourable for nectar secretion.

Working Bees at the Wrong Time

Bee books tell us that colonies of bees should be opened only during the warm part of the day while the bees are working well. While keeping bees commercially in the raspberry area of Michigan some years ago, I disregarded what I had read in the books and foolishly removed the cover from a very populous colony early one cool morning during a buckwheat honey flow. What possessed me to do such a thing, is beyond me. Bees are known to be cross during a buckwheat flow because the plant yields nectar early in the day and the flow shuts off soon after midday. Before opening the hive I lighted my smoker and put on my bee veil but didn't make sure that the veil was properly adjusted, nor was my bee smoker well lighted. When I cracked the cover of the hive with my hive tool the bees boiled out of the top opening, also the entrance, by the thousands and covered me from head to foot, crawling up under my bee veil and pant legs. Smoking them did no good. Since practically all of the bees were at home they attacked me in mass formation and gave me a warm reception.

I couldn't endure the stinging so I decided to make a hasty retreat to a clump of evergreens some little distance from the hive. I didn't run but I walked mighty fast. I crawled on my hands and knees around the base of the evergreen trees until most of the bees left.

That experience taught me a valuable lesson—never to open a strong colony of bees early in the morning during the buckwheat honey flow.

Bees and Stradivarius

A retired German engineer, Erich Knopf, appears to have solved the most elusive musical mystery—the source of the matchless tone of the Stradivarious violin, says the Bonn correspondent of the "Daily Telegraph."

Now 70, Knopf has been working since 1939 on his experiments.

Others have sought the key to the mystery in the quality of the wood Stradivarius used or in the shaping it received at his hands.

Knopf, however ,has been studying the varnish on Strads. It is there that he believes he has found proof that Stradivarius owes much of his reputation to the bees of the North Italian town of Cremona, where he lived and worked.

The varnish that includes resin made by the bees and used in the construction of their hives has long been known to experts, but it has not been highly regarded because it smears badly on application and dries very slowly.

It was left to Knopf to trace these undesired qualities to balsam contained in the bees' resin. Knopf says the bee resin of the Cremona area, however, contains none, or almost none of the offending element and that varnish made from it is of such excellence as to be the source of the exquisite tone of Stradivarius violins.

Honey Lemon Cheese

Three eggs, ½lb sugar, ½lb honey, ¼lb butter, juice of 3 lemons and grated rind of two. Beat eggs well. Put all ingredients in double saucepan or basin, and cook in an outer saucepan of water until thick, stirring frequently. Must not boil.

The author concludes that the spores of Bacillus Larvae can remain alive for at least 35 years.

Journal of Agriculture

It was pleasing to see in the September and October issues of the Journal of Agriculture a resumption of articles on beekeeping after a lapse of some months. These contributions from officers of the Apiary Section are appreciated by beekeepers and are most helpful in promoting good apiary management.

Reflections from the Editor's Desk

The Bible and Honey

There are 68 references in the Bible to bees, honey and honeycomb, and each one is listed in an article by W. W Maxwell, M.D., in "Gleanings in Bee Culture, July, 1961. The references, which are quoted, give striking evidence of the value ascribed to honey as a food in ancient times. The phrase "A land following with milk and honey," occurs no fewer than 20 times in the Old Testament.

Dr. Maxwell sees in the Bible references a confirmation of the recognised food properties of honey and he suggests that the beekeeper can draw a deep spiritual satisfaction from the correlations between the Scriptures and "Nature's most useful food, honey."

Spores of B.L.

"How long can spores of Bacillus Larvae live?" asks Leonard Haseman, of the Department of Entomology, University of Missouri, in an article in "American Bee Journal," August, 1961. Setting out to answer his own question the author quotes the case of a diseased comb which was locked up at the Uinversity in 1924. From time to time since that date a few cells have been sent to laboratories in Washington and Ottawa for double checking on the viability of spores in this old comb. From every sample (the latest in 1959) the spores have been found to be still normal and capable of creating new infection.

A welcome feature of the September article was to be found in its reference to brood diseases. The writer showed that this subject can be discussed clearly and simply without resorting to the "foul" expression which beekeepers formerly used in this connection. We hope that his example can be followed in all our beekeeping literature.

The October issue gives details of the mechanical lift for supers which was demonstrated by Mr C. R. Paterson at the Nelson Conference.

Breeding Stock Importations

We are indebted to Mr F. H. Bartrum, of Pleasant Point, for the following extract from a News Letter published by the Ontaria Beekeepers' Association, Canada, August, 1961:—

> "For the first time in approximately 40 years some new blood has been brought to this Continent in an attempt to improve the breeding stock available. Our laws prohibit the importation of mature adult bees due to the possibilities of bringing in Acarine disease. Immature stages of several types of bees available from Europe and Great Britain were brought to this Continent by Dr. M. V. Smith, of the Department of Apiculture, O.A.C. Guelph, Dr. Smith spent approximately one month in England producing pupae and other immature stages to transport in a specially constructed container carried by himself on a Jet Aircraft. He travelled to New York and

Baton Rouge, Louisiana. Queens and Drones in the late pupal stage, and female larvae and eggs were taken to the U.S.D.A. Lab. at Baton Rouge where honeybee geneticists have been able to artificially inseminate some of the virgin queens for use as breeders. Already mature queens have been sent to Canada and will be used for testing purposes. More information will be released on this matter as the program develops."

Apidictor

A few years ago we were told about the apidictor, an electronic pre-swarm detector invented by E. F. Woods, of the B.B.C. When the instrument is inserted into a hive it analyses the bee noises and indicates whether the colony is making preparations to swarm or not.

The apidictor has now been tested in New Zealand by Mr George Nichols, at the Ruakura Animal Research Station. He records his findings in "The Australasian Beepkeeper" of August, 1961.

It is obvious that careful training and experience are needed in the correct use of the instrument. In the results quoted the answers were right 47 times, doubtful 21 times, and completely wrong twice. The procedure takes 22 seconds at each hive.

To a commercial beekeeper the time involved in making tests and the degree of uncertainty in the results would be significant factors. But the real weakness in the system is the assumption that if no swarm cells are present the colony is "all right." Actually the most effective measures against swarming are taken before the cells appear, not afterwards, and the big question is whether any form of pre-swarm detector, however reliable, could serve a useful purpose under good apiary management.

Hair Curlers

Mr J. R. Barber arrived at the recent Executive meeting equipped with a multi-coloured collection of cylindrical perforated plastic hair-curlers, and proceeded to demonstrate how to use them. The opening at the top is exactly the right size to receive a queen cell, and the cup at the bottom serves to hold some food, while the rough exterior walls grip nicely when the unit is suspended between two combs. The remark was made that this neat little assembly is obviously not a hair-curler that can be used as a queen nursery cage, but a cage that can be used as a hair-curler.

Mr. Roy Abernethy harvesting his crop in the Owaka Valley, South Otago. If the weather is unsettled Roy may hurry to an out-apiary between rain showers to collect a load. —Photo by Chris Dawson.

CORRESPONDENCE

The Editor,
Dear Sir,

It is regrettable that Mr. Herron, in ending a long and honourable association with the Honey Marketing Authority, should have lent his name to such a series of mis-statements of fact and inaccuracies as are contained in his circular to producers dated 1/9/61.

My personal inclination was to ignore this circular as being something best forgotten and forgiven and to extend my sympathy to Mr Herron in his illness. However, my colleagues on the Authority have unanimously instructed me to make this statement in reply.

Mr. Herron states that "Experience has proved that the organisation cannot make a return to suppliers on a level with that offered producers by packers and outside commercial concerns." This year, despite unexpected and heavy expenditure on plant and equipment the Authority has not only paid the maximum price permitted under the price order for the top grades of honey but has achieved the highest average payout in its history.

Mr. Herron's remarks concerning the recasting of the constitution of the Authority are too vague to warrant comment and when he talks about allegations from some quarters of inefficiency not being substantiated by supporting evidence, he is quite definitely talking at variance with his considered opinions expressed at meetings.

During the past year the Authority has made many changes in both plant and procedure. The result has been that we are now giving producers a better service than ever before and the efficiency of our operations is vastly improved.

In all these deliberations, Mr Herron was an active and acquiescent participant, and it is a matter of record that the major decisions reached were unanimous. In no case did Mr. Herron record a view contrary to the decision reached and he himself could well heed his reference to "loose unfounded talk."

My colleagues and I wish Mr. Herron a speedy return to full health.

Your faithfully,

12/10/61 G. E. GUMBRELL,
Chairman, N.Z. H.M.A.

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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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CONTENTS

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