THE NEW ZEALAND BEEKEEPER

OFFICIAL ORGAN of the
NATIONAL BEEKEEPERS' ASSOCIATION
OF NEW ZEALAND

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

Better Beekeeping | Better Marketing

THE NATIONAL BEEKEEPERS' ASSOCIATION.

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Southland: Mr. L. K. Griffin, Woodlands, Southland.

SUBSCRIPTIONS:

1 — 15 hives	5/-
16 — 50 hives	10/-
51 — 100 hives	15/-

Five shillings extra for each additional 100, with a maximum of £2.

INSURANCE PREMIUMS:

1/6 per apiary per annum. (Insurance is voluntary, but, if taken, all of a member's apiaries must be covered.)

JOIN YOUR NEAREST BRANCH AND DERIVE FULL BENEFITS.

The New Zealand BEEKEEPER

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Gilbert S. Kirker, Editor.
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THE BEEKEEPING INDUSTRY.

A Synopsis Prepared by the Horticulture Division of the Department of Agriculture. Published by Courtesy of the Hon. J. G. Barclay, Minister of Agriculture.

The beekeeping industry in New Zealand is essential to our economy, as it supplies a national service of pollination of flowers of economic plants, and also adds to the wealth of the community by the production of a first-class food that would otherwise go to waste.

In July, 1917, regulations for the registration of all apiaries from one hive upwards came into force.

The general trend in beekeeping is illustrated by the following table:—

Season.	No. of Registered Beekeepers.	No. of Hives Owned.
1919-20 ..	6,392	69,877
1929-30 ..	6,925	104,239
1940-41 ..	5,248	136,362

The present distribution of hives in the various apiary inspection districts throughout the Dominion is as follows:

District.	No of Beekeepers.	No. of Apiaries.	No. of Colonies.
Auckland	1,182	1,467	15,503
Hamilton	561	1,112	31,355
Hastings	649	1,004	13,231
P'merston N.	1,036	1,864	25,640
Nelson	342	443	5,498
Christchurch	665	1,213	23,888
Invercargill	813	1,246	21,247
Totals	5,248	8,349	136,362

Of the above number of beekeepers 1,299 own commercial apiaries and 3,949 domestic apiaries.

Production: The estimated total normal production of honey for the Dominion from commercial and domestic apiaries, based on the present number of colonies, is 3,396 tons. This production is harvested in the respective apiary inspection districts as shown on page 2.

The production of honey from commercial apiaries last season (1940-41) was approximately 15% below normal, owing to adverse weather conditions in certain localities, and would amount to 2,696 tons.

Marketing: The plan initiated by the Government in December, 1938, to set up a central receiving, packing and sales depot for the voluntary use of beekeepers, subject to a seals levy of one half-penny per lb. imposed on all honey retailed outside of the organisation, has succeeded in stabilising the market for the sale of honey throughout the Dominion. There is no other organisation in New Zealand catering for the packing and sale of honey on behalf of producers.

The Internal Marketing Division has also assumed the authority and responsibilities of the Honey Export Control Board, which now acts in an advisory capacity. All sales of honey made in New Zealand by beekeepers outside of the organisation provided by the Government are of a private nature between individual beekeepers and merchants, consumers or manufacturers.

Grades and Values: The percentage of honey passed at the Grade Store in each colour grade during the past season was as follows:—

	White.	Extra Light Amber.	Light Amber	Medium Amber.
North Island	43%	44%	11%	2%
South Island	91%	7%	2%	—

Payment to beekeepers for honey supplied to the Internal Marketing Division is made on a pro rata basis according to grade.

Consumption: With an export of 500 tons during a normal year, the consumption of honey from commercial apiaries is approximately 3lb. per head of population.

Labour Requirements: Reports from all districts indicate that commercial beekeepers (1,299 persons with more than 10 hives each) employ a total of 65 permanent assistants and 100 casual assistants for from three to six months each season.

Honey-production Areas: Following are the main commercial honey-producing centres in each apiary inspection district and the approximate proportion of honey produced in each colour grade, i.e., White, Light Amber Groups, Medium Amber and Dark Amber:—

Auckland and N. Auckland: Main areas of production—Franklin, Manakau, Eden and Whangarei Counties. Grades: White 16%, Light Amber 34%, Medium Amber 34%, Dark Amber 16%.

Hamilton: Waikato, Waipa, Matamata, Ohinemuri, Hauraki Plains and Otorohanga Counties. White 35%, Light Amber 65%, Medium Amber 5%.

Hastings: Hawkes Bay, Waipawa, Pahiatua, Masterton and Wairarapa South. White 60%, Light Amber 35%, Medium Amber 5%.

Christchurch: Production evenly distributed between Waitaki River boundary and the Ashley County in north. White 70%, Light Amber 28%, Medium Amber, 2%.

Invercargill: Southland, Gore centre and Otago Central (Vincent and Maniototo Counties). White 90%, Light Amber 7%, Medium Amber 3%.

Nelson: District comprises Nelson, Marlborough and Westland. In Westland the bulk of production is secured from tree tops (Kamahi and Rata). Where Kamahi predominates the honey does not find a ready sale. A mixture of honey gathered from Rata and Blackberry, however, finds a ready sale. Production from ground sources is very small in Nelson and Marlborough.

Palmerston Nth.: Production evenly distributed, with the exception of the following counties, which are of little importance—Hutt, Waitotara, Waimate West, Whangamomona, Clifton, Pohangina and Waimarino. White 40%, Light Amber 55%, Medium Amber 5%.

Comparisons:

Percentage of commercial beekeepers in New Zealand: North Island, 62.%; South Island, 37.5%.

Percentage of normal production of honey: North Island, 62.% (1,973½ tons); South Island, 37.% (1,198½ tons).

Government Assistance to the Industry: This is provided by the Horticulture Division and the Internal Marketing Division.

APIARY INSPECTION DISTRICTS.

Inspection District.	Commercial Apiaries: Total No. Hives.	Commercial Apiaries: Normal Av. Production.	Domestic Apiaries: Total No. Hives.	Domestic Apiaries: Normal Av. Production.	Grand Totals. Honey Production.
Auckland ..	12,060	323 tons	3,443	46 tons	369 tons
Hamilton ..	29,782	797½ tons	1,573	21 tons	818½ tons
Hastings ..	11,079	291 tons	2,152	28 tons	319 tons
Palmerston Nth. ..	21,827	562 tons	3,813	51 tons	613 tons
Nelson ..	4,472	119½ tons	1,026	13½ tons	133 tons
Christchurch ..	21,749	582½ tons	2,139	28½ tons	611 tons
Invercargill ..	18,542	496½ tons	2,705	36 tons	532½ tons
Totals ..	119,511	3,172 tons	16,851	224 tons	3,396 tons

DEPARTMENT OF AGRICULTURE (Horticulture Division). Appendix 1

APIARY STATISTICS, 31st MARCH, 1941, AND APPROX. NORMAL HONEY PRODUCTION.

1,299 beekeepers own commercial apiaries and 3,949 domestic apiaries.

	COMMERCIAL APIARIES:			NON-COMMERCIAL APIARIES:			GRAND TOTALS:		
Inspection District.	No. with over 10 hives.	Total No. hives.	Approx. production av. season.	No. with 10 hives & under.	Total No. hives.	Approx. production av. season.	Apiaries.	Colonies.	Production.
Auckland ..	373	12,060	323	1,094	3,443	46	1,467	15,503	369
Hamilton ..	652	29,782	797½	460	1,573	21	1,112	31,355	818½
Hastings ..	394	11,079	291	610	2,152	28	1,004	13,231	319
Palm. Nth. ..	768	21,827	562	1,096	3,813	51	1,864	25,640	613
Nelson ..	134	4,472	119½	309	1,026	13½	443	5,498	133
Ch'church ..	668	21,749	582½	545	2,139	28½	1,213	23,888	611
Dunedin ..	536	18,542	496½	710	2,705	36	1,246	21,247	532½
	3,505	119,511	3,172	4,824	16,851	224	8,349	136,362	3,396

The discrepancy between the figures shown herein and those shown in the annual report is explained by the fact that a purge of registrations has since taken place bringing forward a number of new registrations.

PETROL RESTRICTIONS.

The sudden virtual cancellation of petrol supplies to beekeepers in the middle of December practically brought the industry to a standstill at a season of the year when beekeepers most need petrol in tending their hives putting on final supers and removing early honey for extracting.

Instant action was taken by the Dominion President and the General Secretary, the strongest possible representations being made to the Government. Similar action was taken by the Honey Control Board and the Honey Section. By the end of December the position was alleviated somewhat, but it is imperative that beekeepers recognize the inevitability of reduced allowances in the present emergency.

The Oil Fuel Controller, Wellington, wrote under date December 30:—

"I have been directed by the Hon. Minister of Supply to reply to your letter of the 15th December in reference to the recent petrol restrictions on beekeepers, and I have carefully noted your suggestions.

"I have instructed Local Controllers to review the licenses for beekeepers, and sufficient petrol to meet their minimum essential requirements will be made available.

"At the same time I wish to stress the urgency of saving petrol, and should be pleased if your members would make every effort to reduce their requirements to the lowest possible figure.

"Any of your members requiring a re-adjustment of their licenses should be asked to place their cases before the nearest Local Controller."

(Note: The General Secretary was inundated with correspondence and telegrams in the above connection from all over the Dominion. Replies were sent in many instances, but it became an impossible task in the end, in addition to coping with official correspondence in the matter, so many letters will appear to have been neglected, but all possible action was taken immediately the position arose. The General Secretary would like to mention that the situation was not ameliorated any by the sudden calling of a number of emergency Home Guard "Stands to" and he is, in addition, endeavouring to cope with nearly 600 hives alone, since his partner is now serving overseas, and it has been impossible to engage labour.)

ESSAY COMPETITION

DISPOSING OF THE CAPPINGS.

By R. R. Bushby.

First Award—Prize 10/-.

With the approach of the busy season, many small beekeepers will be fixing up their solar wax extractors to melt burr comb and cappings. If the cappings are put straight into a solar after draining, there is usually as much honey as melted wax, and the honey becomes like toffee with the great heat. To overcome this difficulty and also to avoid waste of such honey, I made a cappings drier which works on a hive. The bees get the benefit of the honey, leaving the cappings as dry as chaff.

The idea is to suspend the wet cappings above a tray and let the bees work from underneath, the wax flakes falling into the tray as they are cleaned.

After much experimenting, I finally chose two shallow supers. Inside one I fixed a wooden bottom ⅜in. thick, 18¼in. long, 13in. wide, and ¼in. up from the bottom of the super. This leaves a ⅜in. gap along each side to serve as a beeway. This baffle board also covers the cluster of bees and makes for easier manipulation.

I then made a tray of flat iron 17½in. x 13¾in. x 4in. to go inside the super and on top of the baffle board. Two wire loop-handles serve to lift it out. Two strips of bottom-bar, tacked crosswise on the botom, save any bees under the tray from being squashed. Eight strips of tin, 4in. x 1in. with ¼in. turned up on one edge, nailed vertically about 2in. from each corner keep the tray away from the sides of the box.

To the bottom of the other half-super I fixed a piece of 1in. mesh wire-netting, stretched tight and fastened with a flat-headed nail in the corner of each mesh. Inside of this box and against the netting I nailed a piece of 1in. x 1in. wood, sawn on the angle, to stop the cappings falling outside the tray underneath.

In use, the box containing the tray is placed on top of a medium strength colony that has sufficient storage space for the amount of honey that will be obtained from the cappings to be treated. The box with the netting bottom is then placed on top of the tray box; wet cappings are tipped into this and levelled off. A wooden hive mat and cover are put on and the bees left to do their work.

The drier is best filled in the evening so as to prevent robbing. The boxes and cover must be absolutely bee-tight for the same reason. The following evening, stir up the cappings remaining in the sieve as they sometimes form a hard lump which the bees cannot work. The cappings should be cleaned within 48 hours if the weather is not too cold. The cover can then be removed and any large pieces which have not passed through the sieve can be pushed into the tray with a hive tool.

The dried cappings are then taken off and put into the solar, the sieve being refilled. The lid should be left off the solar for a minute or two to let any bees escape that have been trapped in the cappings.

Quite a large quantity of cappings can be treated in this way in a week or two, and the amount of honey wasted is negligible.

193 Wairarapa Road, Fendalton, Christchurch, N.W.3.

EDUCATION BY OBSERVATION.

By M. F. Clark.

Second Award—Prize 7/6.

To the amateur beekeeper comes undoubtedly the thrill of discovering for himself some of the habits of his busy little friends. Observation is, of necessity, limited to the warm summer days.

How impatiently he waits for the time when the hive, after spending months in a semi-torpid state, gradually unfolds itself to reach the climax

of its activity as the old year dies and a new is borne.

Such are the feelings of one who, though a registered beekeeper of ten years' standing, still looks forward to the season of the year when fresh ideas can be tested, experiments attempted and new apparatus put into action. To me, the excitement of catching the first swarm is ever fresh and always full of some new and interesting details.

Quite recently, while "boxing" a swarm off a flowering currant bush, I had occasion to dump the bees in front of the empty hive prepared for the swarm. All was proceeding according to plan, when my friend, standing by, quietly remarked, "Would you mind removing this bee from my nose?" Imagine my surprise and amusement on discovering that the one bee, among the many thousand present, that elected to alight on that very spot should be the queen herself! Needless to say, no time was lost in returning her to the family already pouring into the new hive.

It is, however, not only in the comparatively rare occurrences, but also in the every-day activity where interest lies for those who will take time to watch. Have you ever noticed how timidly, yet how eagerly, the young bee entrusted with one of her first outside duties approaches the little stream in search of water? As if warned before leaving home not to get her feet wet, she seeks out a place away from the running water, merely damp, and there drinks her fill.

See the worker, now in search of pollen, roughly if not rudely burst open the golden broom, and wallow in the dust-laden stamens. Notice her wipe her head and back with her legs, and pack the pollen into the space provided on the back legs until she is literally laden down with the burden.

Among the most important activities carried on in the hive is that of egg-laying by the queen, and yet how seldom, in my experience at least, does the beekeeper actually witness the operation. On one occasion, while examining a frame, I noticed the queen walking slowly about, followed by her attendants, poking her head every now and then into a cell. Presently, having found one suitably polished and not already occupied, she drew up her long body and inserted it deep into the cell for about a second or so and then withdrew it to leave a pearly white egg deposited right in the centre. I had witnessed a thousandth part of her daily task.

But perhaps, of all the apiary activities, the mating of the queen is the one most rarely seen. Several years ago, while standing in the middle of a large paddock, I heard an unusually loud buzzing and at first thought a swarm was approaching. Suddenly, I noticed a number of bees flying very excitedly about a queen who was endeavouring to disengage herself from a drone that had died as the inevitable result of the mating. Immediately she was free, the queen headed back to the hive where, within a few days, she would commence her life's work. As we look round Nature, seldom if ever do we find such a marvellous provision for propagation of the species without another mating.

These are only a few of the hundred rare and interesting sides of life in the apiary.

27 George Road West,
Ngaio, Wellington, N.4.

THE OLD QUEEN TAKES OFF —THE NEW QUEEN TAKES OVER.

By Ray J. White.

Third Award—Prize 5/-.

In the various wonders of bee life, there is nothing so perfectly controlled as natural swarming. A natural swarm issues forth with all the conditions demanded by Nature. The weather is warm and calm, the gardens and fields are aglow with blossoms, the air is filled with the odours from the fruit trees and, in the evening, if one stands near the hives, the strong, sweet, almost sickly perfume of the stored honey is almost overpowering.

When the first swarm starts off from the parent hive, it consists of a large number of ordinary workers. Upon them falls the bulk of the labour—the field work for the supply of the

essential stores for establishing and sustaining their future home. There is also a good supply of young workers who act as nurse bees. Although they have no developing brood to attend to at that time, they soon will have plenty to do, because the queen, or mother, which leads off the swarm, will commence laying her eggs as soon as the workers have drawn out some cells in their newly constructed home. A few drones will also be mixed up in the swarm—that apparently disorderly crowd. What do you think?

A similar multitude of bees are left behind in the parent hive, but their queen is still a virgin. So the new swarm and the old parent hive are similar and yet dissimilar. Similar in that there are working bees—field and nurse bees—and drones. Dissimilar because, in addition, there are developing bees, i.e., brood in all stages from eggs newly laid to bees just emerging from the chrysalis.

The parent hive still has an infertile queen. She may not become fertile until some days after the departure of the swarm. From the time when the old queen takes off until the time when the young queen becomes fertile, there is a break in the daily increase to the inmates of the old hive.

Suppose you had taken a look into the old hive the day before the swarm had left. You would have seen the bees densely packed between the brood combs, each comb a perfect, full frame of brood or eggs. Probably there would not be much honey, but an abundance of bee-bread and some queen cells.

If you had searched for the queen, you might have found her with some luck, but it would be almost like the proberbial needle in the haystack.

Now, if you take a look into the hive a day or so after the swarm has left, you see quite a changed appearance. There are not nearly so many adult bees, but plenty of brood in all stages of development. Looking for the queen cells, you will find them empty. Their "cups" are there with the edges either all frayed or torn away. Now you think you will be able to find the new queen easily, but if you have had little practice in looking for these queens, your search is likely to be in vain.

Still, she is there somewhere. She is a virgin queen and not easily distinguished. You must not look for a big bee like the old queen, but a bee not much larger than an ordinary worker. In form, she will be much like the old mother queen, but not in size.

When the weather is favourable, this virgin queen takes her "wedding flight" to meet the drones. She starts her flight backwards, returns two or three times to the alighting board, and then, having studied her home surroundings thoroughly, she departs like an arrow into the blue.

It is Nature's wish, in the interests of crossed fertilization, that the union of drone and queen should be possible only in the open air. Soon, the queen mother returns to her hive and, two days later, she lays her first egg. From that time onwards, she is the mother of the hive and is ready to carry out her duties and develop a strong, healthy colony.

16 Barker Street,
Wellington, C.3.

The response to our Essay Competition this time has been very gratifying, and we are satisfied that the experiment is stimulating interest in the Journal and the Association. No offers of Prize Money have been received from Branches, however, and we cannot continue the feature without this support. Will Branch Secretaries please take this up at their next meetings? There are twenty-four Branches and if each took a turn, the outlay would be 22/6 only once every six years!

Entries are invited for our next number. These should be addressed to the Editor, endorsed "Competition," and should be to hand not later than March 15th. Successful entries, which must be on a bee-keeping topic, will be published in April. Prizes as before.

INTERNAL MARKETING DIVISION
(HONEY SECTION)

The intensifying of war conditions will bring new difficulties into the marketing and distribution of honey. The experiences of the last war and the following collapse of the honey market have not been forgotten.

Suppliers to the Internal Marketing Division are assured that the position for the ensuing year is well safeguarded. We hope to be able to give at least an equal, if not an improved, service to suppliers during the coming season. Transport, labour and other difficulties arising out of the present state of affairs will be minimised as far as it is possible. All suppliers will realise that routine is considerably upset just now and will, we trust, make allowances for any delays, should they occur.

Shipping from the South Island, as last year, is a cause of delay in southern suppliers getting returns. Possibly an improvement in this respect could be made if suppliers, before consigning, enquired from their Railway Station when to consign in order to obtain a direct boat connection.

During the past season we were in the unfortunate position of being in short supply of honey. Packing ceased in the middle of November and we have had to hold up Army orders and refuse shipping space for honey to supply our overseas quota.

We trust that producers will do their best to provide sufficient honey during the present season to make it possible for the Honey Section to meet all its requirements.

Every inconvenience avoided is of value at this time.

The observance of an exact routine in packing, branding, advising and consigning honey saves much work.

Follow carefully the directions given in "Information Circular No. 15."

We note a few points for particular attention:—

1. South Island suppliers—make out Railway Consignment Notes as directed in Para. 5.

2. Always send *two* advice notes to the office immediately honey has been sent.

3. See that brands and marks on cases are stencilled on. A stencil can easily be cut out of cardboard, and black boot polish thinly used makes a satisfactory job.

4. Cases should be securely nailed, especially when honey is shipped. Four two-inch nails each end, sides, tops and bottoms.

5. Samples cannot be graded but intending suppliers will be advised if honey of a certain sample is up to the required grade standards. The name of the sender should always be put on the container.

6. *Purchase of Seals*: If packers who purchase their seals at the office telephoned their order before calling, it would save them waiting while the seals were counted and checked.

BEE-SPACE.

As for the bee-space, it appears that bees like to crawl about passages five-sixteenths of an inch high just as though they enjoy rubbing their backs as they go along. A space narrower or wider will be plugged with propolis and wax so it saves a great deal of time and trouble by having the bee-space correct. Nowadays all equipment is made with the bee-space on top of the frames, so home-made equipment should be made to conform with factory-made articles.

THE BUSINESS END OF A BEE.

Which is the business end of a bee? Both; for when she's making honey it's her head, but when you're taking honey it's her tail.

("Australasian Beekeeper.")

FINE WAR EFFORT.

Woodford House School and Old Girls' Association.

More than £1000 has been raised this year by the pupils and ex-pupils of Woodford House School, Havelock North, Hawke's Bay, for the purchase of New Zealand honey for distribution to units of the Royal Navy, principally among the minesweepers which do such arduous work round the coasts of Britain in all sorts of weather.

During 1941, over six tons of honey was sent, packed six 10lb. tins to the case. Two cases are placed on large vessels and one on smaller ships. Each tin has a label bearing the lettering in prominent type, "*New Zealand Honey*," followed by the caption, "Given in Gratitude by Woodford House School and Old Girls' Association." Then follows the address of the school, and a special space is provided for insertion of the name and address of the personal donor of the money which bought the tin of honey bearing the label.

These free gifts of honey to the officers and men of H.M. ships is popularizing New Zealand honey among all classes of society and should be of great value when we are again selling honey in the United Kingdom at the conclusion of the war.

Some of the letters of thanks which have come to hand give some small indication of the keen appreciation which is aroused by receipt of these gifts of honey. Space precludes our quoting from more than a very few, but here are some extracts which are typical of very many:—

"It is a glorious thought that our overseas cousins never forget the Navy 'Upon which under the providence of God the Empire doth chiefly depend'."

"Your generous gift of honey will be greatly appreciated by the men serving under this command . . . . . especially by the New Zealanders, of whom we have quite a number."

"Your gift of honey has been greatly appreciated by all aboard this ship."

"On behalf of my crew and myself, thank you very much for the kind gift of honey you sent us."

"We are quite a little ship, and we found after weighing and doing sums that there was just over 2ozs. each, which made a very respectable pot to put on each Mess table. Thank you once again for a very welcome addition to our tea table."

"This is a rare treat for us . . . . cannot remember having tasted honey since before the outbreak of war . . . . thanking you for your kindness."

"As sweetmeats are rather rare, Dominion honey is looked on as a luxury of the highest degree."

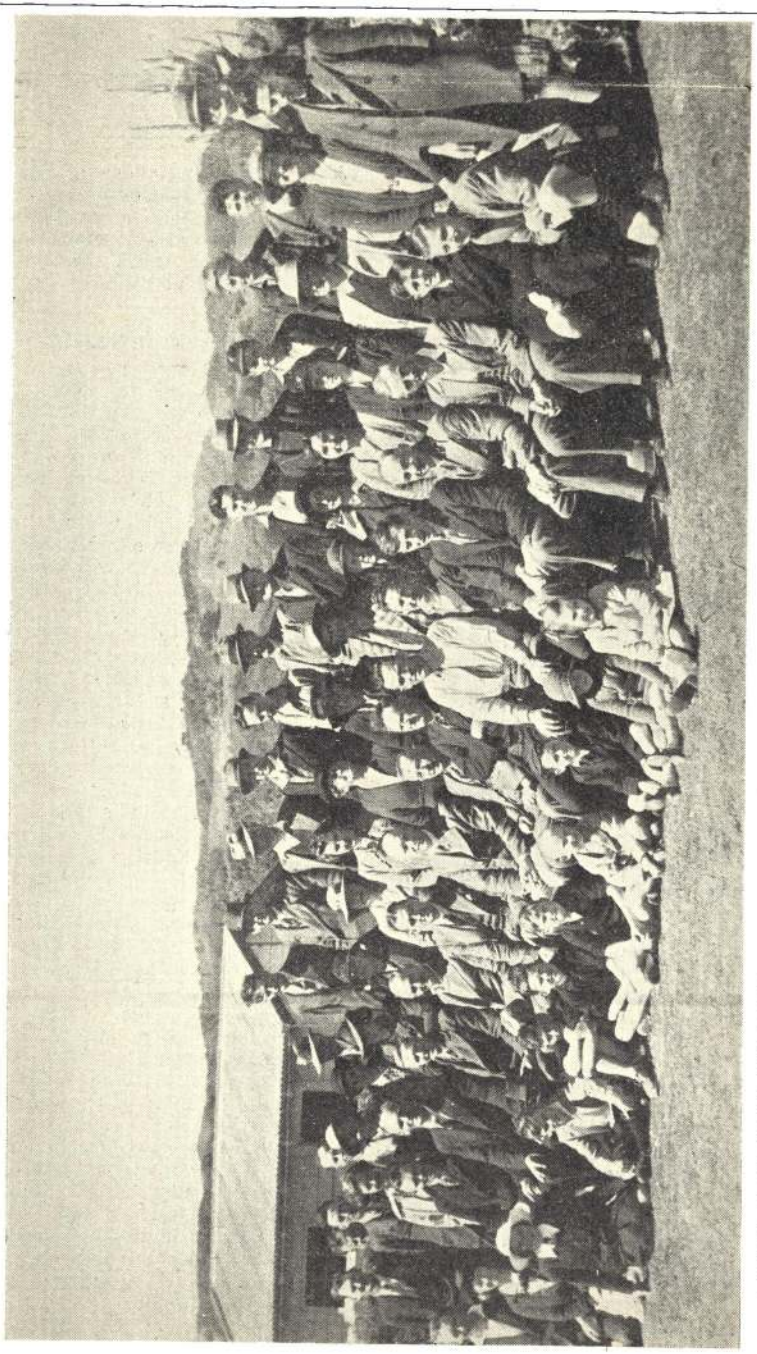
"On behalf of ship's company to try and tell you how much we appreciate the gift of honey . . . . Have spent last two Christmas Days on bully beef and ship's biscuits . . . . Most of crew the same . . . . You can imagine, therefore, how we fell upon your honey with shining eyes and glad hearts. Incidentally, one of my Subs. was sick with a temperature and says it was entirely due to the constant application of your honey on toast that he recovered so quickly. My father-in-law is a New Zealander and is always telling me about Dunedin and the glories of Mt. Cargill . . . . Rest assured we shall get on with the job all the better after tasting Hawke's Bay honey. Our gratitude to you all."

"Please accept grateful thanks for the tin of honey . . . . the best we have ever tasted. We are in a small minesweeping trawler and, believe me, the honey is quite a luxury."

"It was a great pleasure to the crew to receive two large tins of New Zealand honey. We all appreciated it very much indeed for such things are a rare treat nowadays and, believe me, after some days at sea, our bread needs something like that to make it palatable, but we also appreciated the kind thoughtfulness of those who sent it. As a New Zealander myself, I was proud to see the others enjoying something provided by my own country."

"On behalf of the trawlermen based at this port, I thank you."

"The honey is being given to the patients on this Hospital Ship and it is very much to their liking. They comment on its excellent quality."



A GROUP OF SOME OF THE VISITORS WHO ATTENDED THE FIELD DAY HELD AT H. R. HOLDAWAY'S APIARY, OCTOBER 8th, 1941.

BRANCH ACTIVITIES

NORTHLAND BRANCH.

A very successful Field Day of the Northland Branch was held on October 18th the Apiary of Mr. H. R. Holdaway (Secretary), when over 70 beekeepers and interested visitors met for an all day Conference. Amongst the visitors were Mr. Wallace Nelson (Chairman of the Honey Control Board), Mr. J. Rentoul (manager Honey Section, I.M.D., Auckland), Mr. Stoupe (I.M.D.), Mr. L. Riesterer (Apiary Instructor). Representative beekeepers were also present from Taranaki and the Far North. Mr. J. Gavin (President) opened the gathering with a review of the work of the Association and also welcomed the visitors. Mr. Riesterer followed with a demonstration of Queen Rearing, showing system of grafting, preparing hive, introducing queens, etc. An adjournment for lunch which was prepared by Mrs. Holdaway and willing assistants was followed by an address by Mr. Wallace Nelson on the work of the Honey Control Board.

Mr. Nelson also gave a very interesting demonstration on the use of Queen Excluder in honey production which was followed with keen interest by the beekeepers.

During the afternoon tea adjournment Mr. Rentoul gave a very interesting address on the work of the Internal Marketing Division and the grading, blending, and marketing of honey, and many problems of the northern beekeepers in honey production were fully discussed. Much interest was shown in the well kept apiary, workshop, and honey house. In closing Mr. Gavin thanked the visitors for being present, also the Secretary and Mrs. Holdaway for the organising and work put in to make the gathering so successful. Apologies were received from the Minister of Marketing (the Hon. J. G. Barclay) and Mr. W. C. Boswell (M.P., Bay of Islands), whom Parliamentary duties prevented from being present; also from Mr. H. A. Honeyfield, manager I.M.D. (through sickness). Mr Holdaway thanked all for their presence and making the day so successful, also the pleasure it gave him and Mrs. Holdaway to be able to entertain the beekeepers of Northland.

KING COUNTRY.

A well-attended bee-keepers' field day was held on November 1st at the apiary of Mrs. Devereux, Owhango. Among those present were Mr. H. C. Wedde, Raurimu, Mr. and Mrs. Turton, Kakahi, Mr. H. B. Smith, Manunui, Mr. and Mrs. H. Goddard, Owhango, Mr. D. Jurgens, Manunui, Mr. anl Mrs. J. Goddard, Owhango, Mr. T. C. Richardson, Matiere, Mr. C. A. E. Maule, Ongarue, Mr. and Mrs. H. S. Shoebridge, Manunui, Mr. Holt of the National Bee-keepers' Association of New Zealand, and Mr. C. R. Paterson, Apiary Instructor, Hamilton.

In spite of the inclement weather, demonstrations were ably carried out with the aid of models by Mr. Paterson, illustrating modern methods of swarm control, the introduction of queens, and the general routine work of the honey house. A number of working models of labour-saving devices both inside and outside the honey-house were also exhibited by Mr. Paterson, and his efforts were much appreciated by all present.

The President of the South Auckland Branch of the National Beekeepers' Association, Mr. F. D. Holt, gave an interesting address on some of the various problems confronting the bee-keeping industry of to-day, including the marketing of honey, and at the close of the meeting a King Country Branch of the Association was formed, Mr. H. S. Shoebridge being elected President and Secretary.

An attractive and appetising afternoon tea was served by the hostess and Mesdames H. Goddard, J. Goddard and A. Turton.

At the close of the afternoon a hearty vote of thanks was accorded the hostess and her assistants by all

present, and the bee-keepers themselves expressed their appreciation of the efforts of Messrs. Paterson and Holt, which had made the day both interesting and instructive.

CANTERBURY.

The Canterbury Branch held a Field Day on Wednesday, October 29th, at the apiary of Messrs. Barrett & Bray at Leeston.

Although a fairly keen north-east wind was blowing, the day was sunny, and altogether about 60 beekeepers from districts between Timaru and Rangiora attended. Particularly gratifying was the muster of small beekeepers present, some of whom made no small effort and sacrifice to attend what was voted one of the most successful Field Days yet held.

The proceedings commenced with an open meeting of the Association at which topics of interest to members were freely discussed.* After lunch Mr. Bray gave an interesting demonstration with his up-to-date saw bench and appliance-making equipment. Mr. Barrett, assisted by Mr. Gossett, initiated novices into the intricacies of grafting and queen raising. Mr. Forster demonstrated the correct way to dip cell cups, and although a large number of those present may not try their hand at this work for some considerable time, it is unlikely they will forget even the smallest detail of the work which was explained, step by step, in Mr. Forster's singular style.

The two items which, perhaps, attracted most attention and were most interesting to the majority, were Mr. R. S. Walsh's demonstration of the Demaree method of swarm control and Mr. Penrose's talk on hive manipulation. In order to make the demonstration practical a strong colony in 3 supers was used and all, from the one hive beginner to the commercial beekeeper, gained some useful knowledge from what was explained to them. Members then went into Messrs. Barrett & Bray's up-to-date honey-house, where the latest methods of packing were demonstrated. Honey melters, radial extractors and a host of appliances were all the subjects of favourable comment.

After a "Question Box," which was answered by Mr. R. S. Walsh (Government Apiary Instructor) the day closed with a vote of thanks to Messrs. Barrett & Bray.

*The following resolutions were adopted:—

1. "That this meeting of honey producers enters an emphatic protest against the ban on the making of 5's and 10's honey tins, and instructs the General Secretary to point out to the authorities that these tins are essential to the distribution of honey and that, while tinplate is wasted in other directions, restrictions on its use for carrying on an essential industry is indefensible."

2. "That this meeting takes exception to the remarks of the Minister of Marketing as reported in the October Journal (page 8) on the question of the Association standing on its own feet, and would remind the Minister that the producers are standing on their own feet by taxing themselves ½d. per lb. on sales for the benefit of the industry and in voting for a grant from the Seals Fund we are not asking for a grant from the Consolidated Funds."

3. "That this branch of the Association disapproves of the proposal to hold a separate conference of suppliers to the Internal Marketing Division."

4. "That the General Secretary be asked to confirm that Lloyds' Insurance Policy covers members from the date that the premium is remitted to the local Secretary." (Members are deemed to be insured as from date of receipts issued by Branch Secretaries. —Editor.)

WEST COAST.

In his remarks on December 6th, 1941, at the field day held at the apiary of Mr. W. Baty, at Maher's Creek, Barrytown, the Branch President, Mr. E. Airey, thanked Mr. Baty on behalf of the Association for placing his apiary at the disposal of beekeepers.

Mr. Baty said that he was pleased to see visitors from as far south as Hari Hari, and hoped that all present would have an enjoyable time.

Mr. E. Smellie, Apiary Instructor, expressed appreciation of the opportunity of meeting beekeepers collectively, and dealt with the placing of apiaries within three miles of birch and rata, stressing that the bulk of the honey collected by the bees must be of first grade. It was important to provide plenty of shelter from the prevailing winds, and it was also advisable to keep well back from main traffic roads. He suggested placing colonies four feet apart in rows six feet apart, and mentioned the necessity for keeping the grass short as otherwise the bees were impeded on damp days and great losses resulted, as they could not rise from the wet grass.

Over-stocking had to be considered, as well as the unwritten law of keeping at least two miles away from any other commercial apiary. It was desirable to standardize all equipment to allow of it being interchangeable in manipulation of colonies. This applied to lids and bottomboards as well as frames and supers.

The speaker dealt with swarm control and stressed the need for worker combs as against drone combs. Two deep supers were necessary for the rearing of brood and it was necessary to super ahead of the bees to provide accommodation for the surplus honey. Wedging up the fronts of the hives to provide for additional ventilation was also recommended for the summer months.

Mr. Smellie then opened up a strong conony and demonstrated increasing by making a division, but still allowing the hive to work as one colony.

Miss I. Glasson of Blackball demon-

Committee of the Northland Branch of the National Beekeepers Association with visitors at Field Day held at H. R. Holdaway's Apiary, on October 8th, 1941.

Back Row (left to right): H. R. Holdaway (Sec., Whangarei), W. T. Scholey (Hikurangi), C. W. Dent (Kara), F. D. White (Kamo), L. Riesterer (Apiary Instructor).
Front Row: Mrs. J. Gavin (Titoki), Mr. Stoupe (Internal Marketing Division), Mrs. A. Christie (Moerewa), Mr. Wallace (Nelson), Mr. J. Gavin (President, Titoki), Mr. J. Rentoul (Internal Marketing Division, Auckland).

strated an efficient method of making up nucleus colonies.

Mr. Smellie showed how to Demaree a hive to prevent swarming and encourage the building up of a strong force of bees to gather a prospective crop.

Those present inspected Mr. Baty's plant and apparatus for handling his crop. Particular interest was aroused by concrete bottomboards and the mould used for making these.

Mr. J. Glynn moved a hearty vote of thanks to Mr. Baty and congratulated him on the appearance of his apiary and equipment. Special thanks were extended to the ladies for the manner in which they had looked after all present and served refreshments. Mr. Smellie also was thanked for his instructive demonstrations.

Concluding, Mr. Smellie referred to the importance of beekeepers utilizing the A. & P. Shows for displaying their products. He also said that he desired to keep in touch with all beekeepers, but that owing to present restrictions imposed on travelling he might not be able to make as many visits as formerly. However, he hoped that beekeepers would write to him about any problems they might have.

PERSONAL.

Mr. E. Airey, Jnr., son of the West Coast Branch President, has been reported a prisoner of war in Germany after Crete.

Mr. F. M. Coatsworth, of Stirling, a member of the Clutha Branch, is now in training at Waiouru Military Camp with the 1st N.Z. Tank Brigade.

CORRESPONDENCE.

(To the Editor.)

Sir,—

I would like to make a suggestion to the Dominion President and yourself in connection with Controlled Registrations of Apiary Sites. It is that, in future negotiations, you should arrange to go direct to the Minister, even if it entails the expense of a trip to Wellington.

It is fairly obvious that the Department's officers will make representations coloured to suit the official viewpoint, which obviously is not very favourable to our ideas. In these discussions, there are three matters which should be stressed: they are (1) the control of apiary registrations; (2) proposed zoning scheme; (3) the disease question.

I am aware that the present is perhaps not the happiest time to press for schemes of personal interest to beekeepers, and am able to agree that the war situation is such as to justify an indefinite postponement of our plans, but I am also satisfied that our ideas would have been but tardily dealt with had the situation been normal.

As a matter of fact, the war situation accelerates the importance of our zoning scheme as it is possible that difficulties will occur in the export of our produce.

Surprise may be felt at the mention of disease, but I consider that the Association showed definite weakness in not bringing down a resolution re disease at the last Annual Conference. The inference was drawn that all districts were satisfied, but such most certainly was not the case.

It is well known that disease which has been made known to the Department has been left untreated over a considerable period. Beekeepers have a right to expect that disease found during the season will be attended to during that season.

Without working on that principle, the work of inspection goes for little or nothing and a commercial beekeeper who assures himself that his colonies are 100 per cent. clean in the spring should be finished with the job as far as disease is concerned.

Yours etc.,

J. R. BARBER.

Mangaotaki Road, Pio Pio.

FACTS ABOUT HONEY.

The N.Z. Women's Food Value League does good work in promulgating a great deal of valuable information on the values of various foods among a thousand or more readers of its publication, "The Bulletin." The August 1941 number of "The Bulletin," however, published a paragraph under the above heading which gave some misleading information about honey. We understand that the authority for the statements was none other than a Bachelor of Home Science. We reproduce the paragraph:—

"Recently, we were asked for a marmalade recipe using honey instead of sugar. This, together with other incidents, indicates that many people have an exaggerated idea of the food value of honey and consequently spend money on it which would be much better spent on the protective foods such as milk, fruit, and vegetables. The composition of honey varies according to the pollen the bees have used but the average composition is (Rose) about 80% sugar—this is a simple sugar and readily assimilated —and 20% water. It contains traces of protein and mineral ash but is quite lacking in vitamins.

Plimmer gives the following figures for comparison:

	Honey.	Treacle.	Golden Syrup.
Proteins	.4 p.c.	.2 p.c.	.3 p.c.
Ash	.3 p.c.	4.2 p.c.	.9 p.c.

Honey has 1/14 of the ash that is in treacle, and less than the average amount of ash in jams.

Obviously while a very pleasant food, it is an expensive way of taking sugar."

The contributor to "The Bulletin" appears to be without proper knowledge of her subject. This is shown in the sentence reading, "The composition of honey varies according to the pollen the bees have used, etc."

Pollen has nothing to do with the composition of honey except in that some pollen grains may remain in extracted honey when it is not completely clarified. The bees use pollen for feeding their young in the larvae stage.

Probably owing to the fact that scarcely anywhere except in New Zealand is honey commonly used as a food, the investigation of its food value has largely been neglected. Most books on dietetics either ignore it or treat it as a sugar in the terms of calories. During the last few years, however, some eminent dietarians have given it attention.

R. H. K. Thomson, M.Sc., gives the following as the average analysis of New Zealand Honey:—

Water	17.5 p.c.
Ash	.18 p.c.
Dextrose	36.2 p.c.
Levulose	40.0 p.c.
Sucrose	2.8 p.c.
Nitrogen Compounds	.25 p.c.
Organic Acids	.08 p.c.

The following is taken from a recent issue of "Food and Principles of Dietetics," by V. H. Mottram, M.A. (Cant.) and George Graham, M.D. (Cant.), F.R.C.P. (London):—

Composition of Honey.

Moisture	17.70 p.c.
Invert sugar (Glucose and Fructose)	74.98 p.c.
Sucrose	1.90 p.c.
Dextrose	1.51 p.c.
Ash	.18 p.c.

Composition of Treacle and Golden Syrup.

	Treacle.	Golden Syrup.
Cane Sugar	32.5	33.6 p.c.
Glucose & Fructose	37.2	47.4 p.c.
Extractive & Colouring Matter	3.5	1.2 p.c.
Inorganic Substance	3.4	1.3 p.c.
Water	23.4	16.4 p.c.

(A local analytical Chemist advises that the ash in treacle is "mostly dirt!")

1 lb. Lyles Golden Syrup yields 1508 calories.

1 gramme sugar yields 3.95 calories. (equals 1791.6899 calories to the lb.)
1 ounce of honey yields 104 calories. (equals 1664 calories to the lb.)

In discussing Malt Extracts this

authority ("Food and Principles of Dietetics") states:—

"Treacle and Golden Syrup both contain a considerably higher percentage of sugar, and are vastly cheaper. It is true that malt sugar is less apt to irritate the stomach than the cane sugar which treacle and syrup contain, and although not capable of direct absorption as such, maltose may be regarded as a partly digested form of carbohydrate. Both in these respects we have in ordinary honey, a superior food. . . . That is to say that it is actually richer in sugar than malt extract, but has less protein and no dextrin, the calorific value of 1 oz. is 104. Furthermore the sugar of honey is really in a predigested form and ready for immediate assimilation . . . it may be used with great advantage in every case in which one wishes to supplement the supply of carbohydrates in the diet."

Other quotations from same authority:—

"Sugar is only assimilated in the form of glucose, fructose and galactose."

"In strong solution sugar is an irritant to the tissues . . . irritating effects much more pronounced in the case of cane sugar."

R. E. Lothrop (Carbohydrate Research Division, Bureau of Chemistry and Soils, United States Department of Agriculture):—

"While honey is primarily an energy food, consisting mostly of sugar, it does contribute definite quantities of other food elements to the diet, among which are mineral elements. . . . Like them (oranges, lemons, and fruits in general) honey is slightly acid to the taste but as a food it is potentially alkaline. . . . It might be stated that if the question of maintaining the proper acid-alkaline balance in the diet is important, then definite significance can be attached to the reaction of the mineral constituents of honey from this standpoint."

Sir W. Arbuthnot Lane, Bt. (formerly Surgeon to the King; President of the New Health Society) in an article in the "Daily Mail," March 21st, 1930:

"Much has been written about special diets to meet more or less prolonged and severe demands on the store of energy. It is obviously essential that for this purpose the heart shall receive as much nournishment as possible and in the most appropriate form. An excessive demand upon a badly nourished heart may result in a degenerative process in that organ from which the individual may never recover, and which may shorten his life materially . . ."

"*Dr. John Campbell*, one of the New Health Society's technical advisers, urges that in training for sport and athletics honey should form part of the sweetening agent of the daily diet, and before athletic effort, honey should be taken in moderate quantity. (The quantity of honey and the time for taking is given for various athletic sports.) Dr. Campbell states that in his experience there is nothing to touch honey as a cardiac and muscle stimulant and a source of energy." (Quoted by Sir Arbuthnot Lane.)

Dr. Josiah Oldfield of the Lady Margaret Hospital:—

"There seems to be some primary source of vitality in honey superseding vitamins." Dr. Oldfield says he prescribes honey to nine out of every ten of his patients.

Dr. Bodog F. Beck, M.D. (New York), Author of Bee Venom Therapy, Honey and Health:—

"Natural sugars are sweets which prevail in nature, for instance, in honey, fruits, vegetables, milk, etc. . . . Natural sugars are directly and effectually digested, absorbed, and assimilated and become oxidised through a process of combustion. Artificial sugars, like cane, beet, corn and maple, must be converted before ingestion. The main drawbacks of the artificial products are that they are highly concentrated and have the effect of explosive substances. They oxidise violently in the system at the slightest contact with oxygen. . . .

"Artificial sugars interfere with oxidation of less ignitable nitrogenous materials, such as protein. We could compare the effect of artificial sugars in the system with that of highly explosive substances added to fuels in automobile engines. The engine would soon be destroyed; in the same manner as our liver, kidneys, and

lungs are affected; resulting in high blood pressure, cellular asphyxia, diabetis, arthritis and innumerable other complaints.

"While artificial sugars, during their process of oxidation flare up in the system like straw fire, they create a rapid but brief stimulation, without nutritive benefits. If these sugars are taken in excess, they will pass through the kidneys unchanged and remain in the system as poisons, producing instead of the required heat and energy, decay and degeneration. Artificial sugars are especially harmful in renal diseases and for high strung individuals, many nervous states can be attributed to excessive sugar consumption. . . . Honey, a most assimilable carbohydrate compound, is a singularly acceptable, practical and most effective aliment to generate heat, create and replace energy, and furthermore, to form certain tissues. Honey, besides, supplies the organism with substances for the formation of engymes and other biological ferments to promote oxidation. . . . Honey is a most valuable food, which to-day is not sufficiently appreciated. Its frequent if not daily use is vitally important." . . . The foregoing quotations are from high authorities. Apart from this, there is the reputation as a valuable food honey has built up for itself from long experience."

A summary of the above opinions is that honey's superiority to cane sugar (including treacle and golden syrup, which contain cane sugar) is in its being predigested and therefore immediately assimilable, with properties which aid the digestion of other substances.

The importance of honey and its engymes was apparentlly highly valued before the war in Germany, the greatest honey eating country in Europe, and in Belgium. In these countries regulations were strictly enforced prohibiting the sale of honey for table consumption which had been heated to a temperature that would destroy the engymes.

"THE KING'S MEAD."

For a small amount take one quart of water, one cup honey, one lemon cut in slices, one half tablespoon of nutmeg. Boil until no scum comes to the top, removing the scum as it rises. Add a pinch of salt, the juice of half a lemon, strain and cool.

Honey was once used far more commonly in the making of drinks than it is to-day.

POLLEN SUBSTITUTE FOR BEES.

R. D. Bennie.

During the spring of 1936 my attention was drawn, by the owner of a chaff-cutting plant, to the abnormal activity of bees about his machine. As he was cutting chaff about six miles from my nearest yard (although only about ¼ mile from the home apiary of a neighbouring beekeeper) I was not greatly interested.

The following winter was very severe and killed all gorse and broom bloom with the resultant shortage of pollen in early spring, 1937.

In September, 1937, pollen shortage was serious and the colonies were building up very slowly. At this stage a breakdown of the chaff-cutting plant necessitated its removal to the workshop which is approximately 100 yards from my home yard.

The following morning the whole plant was covered with bees resembling a very bad case of robbing. On close observation I noticed that the machine was covered with a reddish-brown powder which the bees were packing into their pollen baskets.

On making enquiries I was informed that the powder, which was attracting the bees, was rust (Puccinia Graminis) from a badly infected oat crop cut into chaff the previous day.

During the following week I noticed a big improvement in the number of eggs laid by the queens in whose hives a good quantity of the rust was clearly noticeable in the cells alongside and in the brood combs.

I was so interested that I decided to experiment further. Accordingly I made a pollen trap which I constructed from a zinc queen excluder and a "Waldron" wire excluder in such a manner that the bees had great difficulty in entering or leaving their hive and made the carrying of pollen into the hive most difficult if not impossible.

This colony was given a good quantity of rust in an empty super above the brood—much of which it carried down and stored in the frames of the brood chamber. The brood produced by this pollen substitute duly hatched and appeared quite normal; no wasting was apparent such as it reported from the use of peameal and similar dead substitutes for natural pollen.

The following year—1938—I again tried the experiment of feeding rust to a hive of bees, first removing all combs containing pollen. This season being very windy the handling of the rust in powder form was somewhat difficult, and I decided on the idea of mixing the powder with honey into a stiff cake which I placed over the frames in the hive with which I was experimenting. This year natural pollen supplies showed a big improvement and the difference between the brood strength of natural and the artificially fed colonies was not so noticeable as in the previous year.

The spring of 1939 was again a year of short-supply of early pollen and the controlled colony made normal progress with brood-rearing, while the remainder just struggled along until natural sources of pollen became available. In the spring of 1940 gorse bloomed fairly well and bees were observed gathering from this source when weather conditions were favourable.

My observations from the spring of 1940 were very significant, for I noticed that egg-laying went ahead spasmodically according to pollen gathering conditions prevailing from week to week in the colonies gathering natural pollen, while egg-laying in the controlled or fed colony maintained a progressive even increase, until maximum laying was reached by the last week in November.

During the spring of 1940 Mr. D. S. Robinson, Apiary Instructor, Dunedin, who had previously helped with advice, asked me to time the consumption of the honey-rust mixture and the disposal of the rust in the hive if observable.

Accordingly, an average strength colony was selected and a saucer full of the mixture was inverted over the frames at approximately 9 a.m. The colony was examined again at 12 noon and we found all but a faint trace re-

moved. By 4.30 p.m. the saucer was absolutely cleaned by the bees. The frames were then carefully examined by Mr. Robinson and myself, and the rust was clearly noticed in the cells of the combs immediately adjacent to the brood. This experiment was tried out on a day very favourable for pollen gathering to ascertain whether the bees would take rust when natural pollen was being gathered freely.

While further experiments are necessary and desirable, I am convinced that rust used as a substitute for pollen is very little, if at all, inferior to natural pollen.

I am indebted to the following for assistance in this experiment:—

A. Kerr, Ranfurly.
D. S. Robinson, Dunedin.
Dr. G. Cunningham, Auckland.

May, 1941.
Ranfurly, Otago, N.Z.

[It would have been interesting to know the amount of honey gathered by the bees being fed pollen artificially, but Mr. Bennie states that, being a strong hive, bees and brood were constantly taken away for forming nucleus hives. It seems desirable that this experiment should be followed up since it may be of considerable value in districts where shortage of early pollen is a drawback in otherwise good honey production areas.

Dr. Gordon Cunningham was asked if the feeding of rust to bees might in any way be detrimental to farm crops. Dr. Cunningham expressed the opinion that, unless conditions for infection were favourable, infection could not occur; and if such were provided then the fungi would become widespread anyhow from outside sources of infection.—Editor.]

CONTROLLED REGISTRATIONS OF APIARY SITES.

The Director of the Horticulture Division of the Department of Agriculture wrote on November 19:—

"In reply to your letter of 7th instant, and further to our conversation at Foxton recently in regard to apiary registrations and apiary sites.

"After going into the matter further, it appears that an amendment to the Apiaries Act, 1927, is necessary before regulations can be gazetted giving effect to the resolution passed at the 1940" (and 1939, and 1941!) "conference of the National Beekeepers' Association in connection with this matter.

"In view of this I am not in a position at present to indicate when the provisions of the proposed regulations will be ready for consideration.

"I will communicate with you again in the matter immediately I am in a position to do so."

Since the General Executive had not had an opportunity yet of considering the proposed scheme, it is not possible to place any further details before beekeepers at this date, but further representations are being made to the Department for early action.

CROP PROSPECTS.

AT END DECEMBER.

West Coast conditions during the latter part of November and through December were very unfavourable. Sugar feeding had to be resorted to in order to keep hives going in many instances.

In Hawke's Bay we have had gales all early summer, depleting bee strength, followed by a drought. Half-crops have been estimated, but some heavy rain over Christmas may improve matters.

A Waikato report states:—The season so far is the worst in my 18 years' experience. Bees in most yards have insufficient to carry them through the winter, whereas, under normal conditions, they would have two-thirds of the crop on the hives. Heavy winds have reduced hive strength and, while the pasture is good, it is not possible now to expect more than a half-crop, and we will be very lucky to get that. This condition applies right through the Waikato.

Taranaki: One of the worst feeding seasons for years. Bees were very late getting away. A fine week or so in December was a help, but the weather has since been unsatisfactory for gathering and a poor crop is likely—in fact if there is not a spell of good weather in January, hives will not have sufficient to winter.

Central Otago: Season is late and little honey yet. Hives in good order and pastures satisfactory. Broken weather at present after a couple of weeks of very hot conditions early in the month.

Auckland: The season has promise, although late. We have had the hardest spring experience for a long time, and feeding has had to be resorted to as rarely before. It has also been difficult getting spring queens mated, owing to cold, wet and windy weather.

It has been estimated that a strong colony will consume a half pound of pollen per day during the height of brood rearing.

HONEY TINS.

Many producers and packers were thrown out of their stride recently when it became apparent that the Government had taken action to conserve tinplate and had prohibited the manufacture of honey tins other than the 60lb. size.

Strong representations were made for some relief this season, as so little notice had been given to the industry—at first without success. Further representations were made and the Minister of Supply wrote under date December 22:—

"I acknowledge receipt of your letter of the 11th December concerning the supply of honey tins to members of your Association. As you fully appreciate, there is a considerable shortage of tinplate and it has been found necessary by the Government to place certain restrictions on the use of this material in order that adequate supplies might be available for the packing of essential foodstuffs such as meat and vegetable ration, fish and fruit.

"With regard to honey, it has been decided to permit the use of tins for all sizes, except the 1lb., during the present season 1941/42, but in future seasons, it will be necessary for honey packers to obtáin authority from the Ministry of Supply before using tinplate containers in sizes other than the 60lb.

"It will be seen, therefore, that there will be no difficulty in arranging for the manufacture of your containers for this season."

BEEKEEPING IN AUSTRALIA

"The Australasian Beekeeper." Illustrated magazine, published monthly by Messrs. Pender Bros. Pty. Ltd. Subscription, 5/- per year, posted. Sample copy free on application to

The Editor,
P.O. Box 20,
West Maitland, N.S.W.,
Australia.

MEDICINES FROM BEES.

By Edward Podolsky, M.D.

One of the most useful of all insects is the bee. An old legend has it that Jesus Christ created bees by throwing a piece of wood into a basket. Another legend says that of all creatures the bee alone has remained as pure as in paradise.

Whatever the legend may be concerning the bee, science has now found that the bee is one of the most useful of all medicines, strange as it may seem. There is actually healing in their stings.

As early as 1855, a French doctor, Demartis, was employing bee poison to treat skin cancer. In 1903, Dr. Terc reported to a society of physicians meeting at Vienna the results of 23 years of practice in the successful treatment of acute rheumatism by means of bee stings. Dr. Terc caused the patient to be stung near the affected joint by a number of bees, and the number of stings in each dose was gradually increased to seventy. After the stings were given, the pains soon went away, and to obtain a cure more treatments were given.

Venom a Healing Agent.

Interest in bee venom as a healing agent has increased within very recent years. Dr. Mardeelin Rey has been doing some very notable work with bee poison. The bees are used as soon as possible after being captured. They are disturbed as little as possible, and crowding of the insects is avoided in order that they may not kill one another.

Isolation of individual bees in glass tubes causes them to lose part of their poison. The bees are collected in a transparent flask, the opening of which is held against the outlet of the hive. By stirring the flask gently the bees thus collected are taken out one at a time with pincers and applied to the affected part of the body.

The stings are confined to a small space; for, by doing so, the soreness of the first sting is not much increased by those which follow. For sciatica the bees are applied to the outside of the thigh, for arthritis, at the joint affected, and for neuritis, at the nerve passages. For more general ailments, such as rheumatism of several joints, an easily accessible and less sensitive region, such as the side surface of the arm, is chosen.

Avoidance of Danger.

To avoid the slight dangers of infection attending this method and to have a winter supply of the toxin, doctors have prepared a solution of the bee poison which is injected with the needle. The results are found to be the same as those obtained from bee stings.

Although direct treatment by the bees is not nearly as barbarous as it may sound, and is accepted by the most difficult patients, there are, nevertheless, cases of hypersensibility to the poison, and these cases require close medical supervision. At first the dose is light, with some interval of time taken to note the effect. Some patients begin treatment with a dose of 10 to 20 stings; and some German doctors advocate doses of 100 to 200 stings a day. But where the treatment is not urgent the dose begins with one bee, which is then increased to five.

Treatments are given every three days, or more frequently, and in the second month the antitoxic immunity of the patient begins to set in, allowing larger and more frequent doses.

Methods of Administering.

There are now three methods of administering bee toxin as a medicine. The first and oldest is to allow the bee to sting the patient directly. The second is to make a maceration or solution of the toxin which is then injected by means of a needle under the skin. Lately it has been found possible to make an ointment containing the bee venom which is applied on the area of the skin affected with gout or rheumatic pains. The microscopic crystals contained in the ointment slightly scratch the skin, there-

by permitting the penetration of the bee medicine. In this way it is possible to avoid the sting with its unpleasant consequences and also to distribute the effects over a comparatively large area of the skin.

Beneficial Action.

Science has found that medicine derived from the bee has four distinct beneficial actions:

1. It acts as a general tonic. All patients treated by the French doctor, Perrin, gained in weight, in appetite, and in ability to sleep well.

2. It acts notably as a revulsive, with power to divert a disease from an organ in which it seems to have settled. This revulsive property of bee venom plays an undoubted role in its healing action.

3. It has inti-infectious properties, and is said to have cured cases of plague, cholera, acute bronchitis and certain diseases of the eyes.

4. Finally, bee venom is an anti-rheumatic agent of the greatest importance. When applied directly to the affected part, it acts mainly as a simple revulsive; but when injected deep into the affected part, it has a curious action. First, the ailment becomes intensified. Then, after a few days, relief comes quickly.

There is no doubt that the bee is now becoming a very important agent in the treatment of a variety of painful affections, particularly painful conditions of the joints, nerves, and muscles. There are now several American drug houses which market bee preparations in the form of ointments and solutions, and doctors who have used bee venom have reported some very encouraging results.

("Canadian Bee Journal.")

CONTROL OF APIARY REGISTRATIONS.

Under date January 12, the Director of the Horticulture Division of the Department of Agriculture advises:—

"A broad outline of the proposals for controlling the registration of apiary sites is in the course of preparation and I hope to have a copy of the proposals towards the end of the present month."

BRITISH HONEY IMPORTS.

The following is extracted from the "Canadian Bee Journal" as being of interest to producers in New Zealand also:—

The following quotations from a letter received from England will explain how honey importers there are allotted quotas and how the honey is handled after reaching England:

"The position now is that at the Ministry of Food's request importers have agreed to pool their imports and arrange a fair distribution among the packers (or bottlers) throughout the country. This distribution will be made on the basis of the total quantity of honey packed by each packer in consumer containers for domestic use in the year ending August 31, 1939. So far as the importers themselves are concerned, they will handle their own licences, but applications will require to be sent forward through the secretary of the association and he will pass them on to the Board of Trade certifying that the quantities applied for are correct.

"Secondly, when the honey imported under licence arrives in this country, the importer will land it and advise the secretary of the association who will allocate this honey between the packers on a fair pro rata basis. There is not likely to be any difficulty about Canadian licences and quantities are expected to be on the lines of the 1940 quota and so far as can be gathered at present, licences will be granted to those importers who had honey during that period.

"The Ministry are recommending that the following quantities should be permitted from the various countries for the 12 months ending August 31, 1942: Canada, 2,000 tons; New Zealand, 460; Jamaica, 950; Australia, 2,900; Kenya, 200."

Australia originally was recommended for a larger quota than Canada but, now that all supplies of Canadian honey available in 1941-42 will be taken, Canada has the opportunity of exporting all surplus and thus may equal Australia's allotment.

N.Z. HONEY CONTROL BOARD

PETROL.

As beekeepers are aware, with major war operations in the Pacific the danger that threatens New Zealand has greatly increased within recent weeks. The crisis has demanded strong action by the Government and many regulations that would never be tolerated by the people in peace time are being cheerfully accepted by all as essential to meet the existing war time situation.

One of the most vital wartime commodities is petrol. Practically none of this precious fuel is produced in New Zealand and the urgency of the need to conserve supplies was brought sharply home to the community early in December. Heavy "cuts" were applied to all users of petrol and many businesses and individuals had their allowances cut out completely. Beekeepers did not escape and many wires, 'phone calls and letters were received from individual beekeepers who found their allowances cut down to a limit that made it impossible to give their bees any worthwhile attention. It was obvious that beekeepers would lose the greater part, if not all, of their honey crops.

For the purpose of acquainting the Oil Fuel Control authorities with the value of the industry and in the hope of obtaining some measure of relief in the matter of petrol allowances to beekeepers as far as stocks would permit, I requested an interview with the chief Authority at Hamilton. This was readily granted.

Before the meeting, however, I arranged a meeting with as many of the leading beekeepers as could be contacted at short notice. A method of calculating the commercial beekeeper's requirements was agreed upon and, acting on my suggestion, Mr. F. D. Holt, President of the South Auckland Branch of the N.B.A., and Mr. H. Jefferies, Branch Executive member, accompanied me in the interview with the Oil Fuel Controller.

Very courteous and attentive consideration was granted by the Controller and his assistant to all points raised by the deputation, and its recommendations were finally accepted on a basis upon which the essential petrol requirements of the average efficient commercial beekeeper should be calculated.

The allowance now granted throughout the Waikato is allocated on a basis of three trips monthly to each outyard (reckoning 40 colonies to an outyard) for the period September to February or October to March—balance of year to be reduced by two-thirds, which means an allowance permitting of one trip monthly to each outyard in the off season. It is understood that beekeepers with apiaries of more than 40 hives will be entitled to receive additional petrol in accordance with the number of hives carried.

This arrangement has the advantage of enabling a local fuel controller to reach a fair estimate of the beekeepers' essential petrol requirements. From beekeepers in areas where this arrangement applies is required:—

List of apiaries.
Number of hives in each apiary.
Distance from the central plant.
Truck mileage per gallon.

Beekeepers will, of course, understand that it is in the national interest to operate their hives in the most economical way possible, and those who can carry on with a smaller amount of petrol than that allowed will be rendering a real service to the country.

TRUCK IMPRESSMENTS

The impressment authorities have found it necessary to take extremely drastic action in the matter of impressing trucks from all sections of the business community.

Many of our leading beekeepers have been obliged to hand over their motor vehicles and, as far as is known, all appeals against impressment have been rejected.

In the case put forward by the Board on behalf of the beekeepers, every effort has been made to emphasize how completely the beekeeper is dependent on his motor vehicle to carry on his work. The value of the honey industry to the Dominion, together with the extreme shortage of

honey to meet army orders and overseas commitments was fully quoted to the impressment authorities.

The Board will continue its efforts to have beekeepers' trucks among the last to be impressed but, meantime, it would be well for beekeepers to face up to the possibility of having to part with them for war service, and to look around for older models that may carry them through a time of extreme difficulty. In a few months, these older models may be unprocurable at any price. Indeed, in some districts, that position has already been reached.

HONEY

In a circular issued by the Internal Marketing Division, producers are requested to send forward supplies of honey with the least possible delay. Honey is urgently required to meet Army orders and the overseas quota.

WALLACE NELSON,
Chairman, N.Z. Honey Control Board.

OBITUARY

It is with extreme regret that we have to record the death on active service of Leading Naval Airman Harry B. Anderson, Fleet Air Arm, R.N.

Immediately before entering the Royal Navy, Mr. Anderson was editor of "The Scottish Beekeeper," succeeding his father, the late Dr. John Anderson, lecturer in beekeeping at the North of Scotland College of Agriculture, who edited that Journal for many years.

Only twenty-five years of age, Mr. Anderson had a distinguished career at Robert Gordon's College and Aberdeen University, from which he graduated M.A. in 1938. He was studying for his B.Sc. degree when he joined the Fleet Air Arm in March of last year, and he was training as an observer and expected to qualify for his commission by the end of the year.

Mr. Harry Anderson was a great bee enthusiast and it was his intention to carry on the valuable work of his father. He was a member of the Aberdeen Beekeepers' Association.

STOP PRESS

HONEY REQUIRED FOR ARMY.

The Internal Marketing Division is urgently in need of honey for Army requirements.

Producers are urged to give first consideration to the fact that petrol has been made available to the industry as a war necessity and therefore the Internal Marketing Division should receive preference over other calls for honey this season, both in respect of New Zealand contracts and Export quota.

Full co-operation of producers is expected and all the honey possible should be forwarded to the Honey Section of the Internal Marketing Division.

DOMINION CROP.

Latest reports indicate a short crop throughout the Dominion. Beekeepers are not permitted to increase prices without prior approval of the Price Investigation Tribunal, but it would be the height of absurdity to cut prices this year.

Central Otago. "We are still (mid-January) waiting for our honey crop. Hives manage to get enough to keep brood-rearing going and there is enough clover with young stuff coming on. Some beekeepers have been short of stores and have had to feed sugar. One of the best past seasons here is reported to have been a February flow, so there is time yet, and 'hope springs eternal.'"

Gore. Beekeepers are having a dreadful season. At the moment there is no surplus, rain and high winds are playing havoc. Up to the end of December all beekeepers had been feeding with sugar, which is procurable locally only in 6lb. lots at the rate of 26/3 per bag

TRUCK IMPRESSMENTS.

The Minister of Agriculture writes under date January 15:—

"With reference to your letter relative to the impressment of beekeepers' trucks, all sections of the community must fully recognize that in these days of crisis a certain amount of dislocation in all indus-

tries is inevitable and that the needs of industry must be subordinated to the necessities of defence precautions.

"I am, however, taking the matter up with my colleague, the Hon. Minister of Transport, with a request that he afford the representations made his most sympathetic consideration."

GUARANTEED PRICE FOR HONEY INDUSTRY

ZONING SYSTEM INTRODUCED

The Internal Marketing Division has announced that a complete payment of 7d. per lb., pro rata, according to grade, will be made this year instead of suppliers being paid by a first advance followed by progress payments as the crop is disposed of.

It has also been decided that the cities of Auckland, Wellington, Christchurch and Dunedin shall be proclaimed as zoned marketing areas in which only honey supplied through the Internal Marketing Division shall be sold.

Producers are requested to supply the Internal Marketing Division with full particulars of stocks of packing materials which they will not require as a result of the introduction of the zoning system.

Introduction of the zoning system follows resolutions adopted at Annual Conferences of the National Beekeepers' Association in April 1940 and June 1941, to the effect that beekeepers viewed with concern the possibility of the Internal Marketing Division meeting such strong competition from independent sellers that the turnover necessary to cover overhead expenses might be inadequate and suggested as a safeguard that complete selling rights should be given to the Division in certain areas to be proclaimed. It was indicated at these Conferences that the areas involved would be the four main centres of the Dominion.

The prospects of a very light crop this season have brought about the circumstances envisaged at the time of the adoption of the resolutions by the two Annual Conferences mentioned, and zoning of the four principal honey markets of the Dominion has therefore been resorted to.

"THE N.Z. BEEKEEPER"

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Literary contributions and advertisements must be in the hands of the General Secretary, National Beekeepers' Association of N.Z., Pungarehu, Taranaki, N.Z., not later than the first of month of publication.

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.

ADVERTISEMENT RATES.

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