# THE NEW ZEALAND BEEKEEPER

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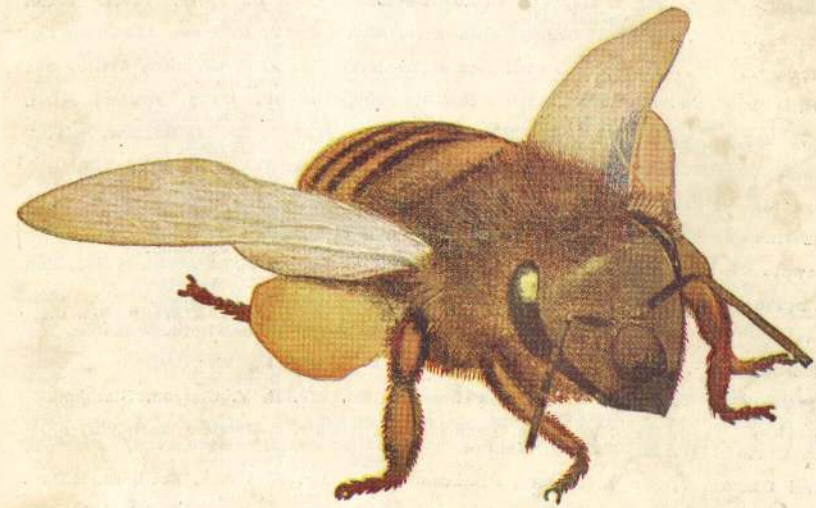

*OFFICIAL ORGAN of the*
NATIONAL BEEKEEPERS' ASSOCIATION
OF NEW ZEALAND
(Incorporated).

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

Better Beekeeping | Better Marketing

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## SUBSCRIPTIONS:

| | | | |
|---|---|---|---|
| Up to 30 colonies | £0 | 7 | 6 (minimum) |
| Up to 60 colonies | 0 | 10 | 0 |
| Up to 90 colonies | 0 | 15 | 0 |
| Up to 120 colonies | 1 | 0 | 0 |
| Up to 150 colonies | 1 | 5 | 0 |
| Up to 180 colonies | 1 | 10 | 0 |
| Up to 210 colonies | 1 | 15 | 0 |
| Up to 240 colonies | 2 | 0 | 0 |
| Up to 270 colonies | 2 | 5 | 0 |
| Up to 300 colonies | 2 | 10 | 0 |
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| Up to 360 colonies | 3 | 0 | 0 |
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| Up to 420 colonies | 3 | 10 | 0 |
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An Associate Member shall pay 5/- per annum.

## 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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## *THE FUTURE OF HONEY MARKETING.*

*After ten years of a serious attempt at an organised and, to a small degree, a co-operative marketing system, beekeepers are giving thought to the policy that will be wise for the next decade. Australia is endeavouring to organise all states in one marketing effort to place their honey on the English market. They have not yet succeeded in persuading all states to join a common effort, but they are satisfied that they have made a good start. On the local market, individual producers may sell their own honey under maximum prices fixed by the government. In the U.S.A., ceiling prices have been removed and prices have risen to unheard of levels. This situation occurred after World War I and thoughtful beekeepers there fear a slump in retail prices because of a lack of a national organisation to control the market. Large private packing concerns effect a widespread distribution of honey to retailers, as is evidenced by the addition of honey to the famous list of Heinz products. Canada has several provincial co-operatives that operate with considerable success for the benefit of their members. We do not know the organisation for the export of honey from Canada, but Britain receives honey both packed and in bulk from our sister Dominion. In the field of beekeepers' Associations, it is noteworthy that both England and U.S.A. have held only their first or second Annual National conference. New Zealand has led all the English-speaking countries in the matter of a National organisation by a quarter of a century.*

*Two valuable lessons can be learned from the failure of two previous marketing organisations to continue operating. The first is that a good export market, unwisely handled, ruined the H.P.A. A good export market, wisely handled just kept N.Z. Honey Ltd., operating. A good export market, neglected, has prevented the Internal Marketing Division from paying a return to producers that would have secured it adequate supplies. The second lesson to be learned from the history of all three organisations is that the producers have only supported them when it suited their convenience. The reason for this spasmodic support is an economic and fundamental one to be considered. If the only price that an organisation can pay to the producer for his honey in bulk, is one that will enable it to add processing costs, to sell to the wholesaler, who has to make his profit to sell to the retailer, who must make his profit to sell to the consumer, then it is operating as a buyer that the producer can only consider as a convenience. These two lessons may be hard to learn. New Zealand is, and will continue to be more so, an exporter of primary products. New Zealand beekeepers have always favoured export to England. The export market has always given the most consistent return, because we have enjoyed a favourable marketing position. The export side of our producer organisations has received the most consistent co-operation. To be successful with local marketing, any organisation must either be heavily subsidised by taxation on retail sales, or share the profit from export sales. We judge that the majority of producers have learned the lessons taught by thirty years of marketing effort and wish to plan the future on a realistic basis.*

*Most beekeepers, stimulated by the demand for honey, have improved their facilities for packing honey and gained valuable experience thereby, so that they have been able to meet the requirements of most people nearer the point of production. Many city people now buy their annual requirements direct from the producer, either by personal call or by order. Many*

*producers have made a point of selling to retail stores in their provincial area, even if they have been unable to supply merchants. We admit that this has not given the best distribution of honey that producers desire, but we believe that the distribution has been more equitable and more general than is thought. Where honey has gone to certain manufacturers, or where some producers have failed to try to effect an even distribution, the position has been worsened and we have previously warned producers against making this mistake. It is sometimes forgotten that the majority of seasons in the past decade have been only normal or below average. This was not peculiar to N.Z. or to Australia, or to S. Africa, but to the honey producing countries in the Northern Hemisphere as well. This was doubly unfortunate as it occurred when the supply of sugar was also below normal. A perusal of the report of the Dept. of Agriculture, elsewhere in this issue, will show that rather less than an average crop has again been secured this season, because of adverse weather generally. A good production year would have considerably helped a better distribution of honey.*

*Even under Commandeer, the I.M.D. had to admit the difficulty of securing an adequate distribution as some of the honey sold to city merchants was sold back to country areas from whence it had been commandeered. In 1944, when the I.M.D. received the largest amount of honey under commandeer—1,262 tons—the distribution was as follows:*

| | | |
|---|---|---|
| *Armed forces* .... .... | 242 *tons or* | 19.2% |
| *Schools and institutions* | 8 *tons or* | 70.2% |
| *Manufacturers, essential* | 51 *tons or* | 70.2% |
| *Manufacturers, other* .... | 36 *tons or* | 70.2% |
| *Hospitals* .... .... | 26 *tons or* | 70.2% |
| *Medical* .... .... | 6 *tons or* | 70.2% |
| *Patriotic* .... .... | 26 *tons or* | 70.2% |
| *Merchants (four centres)* | 631 *tons or* | 70.2% |
| *Rest of N.Z.* .... .... | 129 *tons or* | 70.2% |
| *London, export.* .... | 100 *tons or* | 10.2% |
| *Greece, export.* .... | 30 *tons or* | 10.2% |

*As the 1262 tons represent only under half of the seasons crop, although the commandeer was for 70%, it means, in that year of war, that under 10% went to the armed forces, under 5% to export and approximately 86% of the total crop was sold in N.Z. Those producers who delivered the required amount of honey, in the belief that it was needed chiefly for the armed forces, for England and for essential purposes can be pardoned for wondering if that method of distribution achieved the desired results.*

*With the extra number of commercial men who are establishing themselves in beekeeping, it is not difficult to see our annual production rising to over 4,000 tons in a normal year, and a year of abnormal production could easily raise it to a higher figure. For the immediate future, most of this production could be absorbed on the local market. Sugar will still tend to be in short supply because of world shortages and its increased cost will be reflected in the price and lessened demand for other sweets. Much of the honey habit cultivated during the war can be retained. From the long-term viewpoint, the greatest danger the producer has to fear is his own inability to keep his market stable.*

*The appeal to sentiment is an unreliable prop for sustained endeavour as both the past and the present support of marketing organisations prove. Honey marketing in the future can proceed on sound lines if the lessons of the past are heeded.*

*Our greatest danger lies in trying to compel the facts of the case to a preconceived theory of marketing. The Government will serve our industry well by ensuring more simplicity and more flexibility and a wider representation in the future development of marketing policy.*

# DEPARTMENT OF AGRICULTURE
## HORTICULTURE DIVISION

Beekeeping in New Zealand continues to make steady progress. Beekeepers generally are keen to adopt modern apairy practices to increase the productivity of their hives and to install labour-saving devices for greater efficiency in operating their apairies.

The number of established apairies increased by 1,012 during the year and the number of hives registered by 11,127 for the same period, making a total of 10,457 and 140,703 respectively.

**Climatic Conditions and Production.**

Conditions generally in most parts of New Zealand were unfavourable for beekeeping during the spring months resulting in difficulty to keep up colony strength sufficient to take full advantage of improved conditions and available nectar supplies during January. The honey season was four to five weeks later than usual.

**Auckland:**

Heavy rains and cooler temperatures during March prevented any further honey flow for the season in most localities. Honey crops generally are better than the two previous seasons and remain at average to slightly above average according to location.

**Hamilton:**

A comparatively light rainfall during February caused the pastures to dry out considerably which checked any further growth of clover or catsear suitable for honey production.

Pennyroyal showed up prominently, while thistles provided a light flow of nectar which was the main source of supply at this time.

Good honey crops were secured by all strong colonies, but in the main, crops are slightly below average.

**Palmerston North:**

The weather continued fine during March. On heavy soils clover continued to bloom and yield nectar lightly, as did also catsear, hawkweed, thistles, pennyroyal and Koromiko.

Heavier crops were secured in the Manawatu than other locations. In Taranaki honey crops were patchy. Southern wind swept areas of Taranaki dried up quickly, but in Northern and Eastern parts the yield was above averages. Wanganui district dried up early. On the whole average to good crops of good quality honey has been secured, including much better crops in Manawatu and slightly less in Taranaki than last season.

**Hastings:**

There was a light nectar flow from late dandelions and hawk-weed during early March, followed by wet cold weather conditions which prevented further nectar secretion.

In Wairarapa fair to average crops were secured, Hawke's Bay medium to good, but light crops only in Poverty Bay. The season generally was much better than the previous year for beekeepers.

**Christchurch:**

The weather remained mild during early March but rain and cold conditions generally developed later. Honey crops were average to below average, according to location. Total production was approximately two-thirds of last season's output.

**Dunedin-Invercargill:**

Although there was an exceptionaly good showing of white clover bloom in most districts during January and February with exception of non-irrigated areas of Central Otago, conditions generally were unsuitable for heavy nectar secretion from the beginning of February onwards.

In the Taieri Plains and West Otago areas honey crops were about average. South Otago and Southland below average, North Otago a little better than half crops were secured, while in Otago Central some apairies produced little or no surplus honey for marketing purposes this year.

Ample brood-rearing during March provided a good force of young bees and most beekeepers appear to have left sufficient stores in their hives for safe wintering.

**Greymouth:**

In Westland excellent crops were secured in some locations but in general honey crops were lighter than last year due to long periods of very dry weather. Lack of rainfall appeared to affect the Ratas in that they did not yield nectar as heavily as usual.

**Nelson and Marlborough:**

The season was too dry for normal yields from pasture sources. In Nelson districts crops are below last year, while in Marlborough the past season was the worst experienced for many years due to lack of suitable rainfall.

W. K. DALLAS,
Director of the Horticulture Division.

## SOUTH AFRICA

THE EDITOR,
N.Z. Beekeeper,
Omakau,
Central Otago,
New Zealand.

Dear Sir,

The editing of the South African Bee Journal has been my hobby for many years, but I will be obliged to relinquish this work shortly to enable me to travel extensively in Europe and America and later, I hope, in Australia, now that I have disposed of my printing and publishing business.

I am writing now to thank you for the great amount of help you have given me by the regular exchange of your journal with the South African Bee Journal.

By the time you receive this letter Mr. L. Hardwick, "Molong," Vredenburg Circus, Rosebank, C.P., South Africa, will be editing the South African Bee Journal and I shall be much obliged if you will in future extend to him your help by sending to him your exchange copy.

I am looking forward to having an opportunity of calling on you when I travel in your country in 1948 and to having an exchange of knowledge on the subject of our mutual interest as well as learning more about beekeeping in your area.

Yours sincerely,
ARTHUR N. FIELD,
Editor S. African Bee Journal.

[We will look forward to welcoming Mr. Field in 1948 and to show him beekeeping in N.Z.—Editor].

## DELEGATES TO ANNUAL CONFERENCE.

Every branch should see to it that it appoints its delegate or its proxy for the annual conference to be held in Wellington on July 2nd, 3rd and 4th. Reservations at hotels should be made immediately and travel arrangements as early as possible.

Last year, four South Island branches failed to have representation at the conference. Rule 35 (b) sets out the procedure necessary to appoint a proxy.

Remits, which were to be in the hands of the General Secretary by 20th May, will be circulated to branches as early as possible in order that full information of the work of the conference will be available for the information and instruction of delegates.

### OFFICIAL OPENING OF CONFERENCE.

We are pleased to announce that the Hon. Minister of Agriculture and Marketing, Mr. E. Cullen, will open the conference. We can assure Mr. Cullen of a warm welcome from delegates.

**REHABILITATION BEGINS WITH SOMEWHERE TO LIVE. IF YOU ARE SELLING YOUR BEEKEEPING BUSINESS, SELL TO A SERVICEMAN.**

# BRANCH NOTES

## SOUTH AUCKLAND

A most successful Picnic Field Day organised by the South Auckland Branch of the N.B.A. was held at the Chrystal Springs Omauia, Matamata, on February 8th, 1947. There was a good attendance of members and friends notwithstanding the busy period all beekeepers were experiencing, due to such a late season.

The President, Mr. J. R. Barber, welcomed visitors and expressed the hope that the programme would be of interest to all those present. Apologies were received from Mr. T. Winter who had prior engagements in the South Island, also from Mr. A. E. Deadman, who was unable to attend through pressure of work.

Features of the programme were: (1) A talk by Mr. C. R. Paterson of the Department of Agriculture on Nosema Apis. (2) An outline of the industry's marketing problems by our past President, Mr. F. D. Holt. (3) A demonstration on Queen Rearing by Mr. Allan Bates. (4) A display of the very latest in modern honey house equipment designed by Mr. C. R. Paterson. A heating unit for a warming room; a wax cappings unit; an independant pumping unit with automatic cut-off; and a straining and clarifying plant.

An apportunity was afforded during the luncheon interval for a dip in the hot mineral baths.

Thanks were accorded the organisers for their work in promoting such a successful programme.

—J. D. Lorimer.

## WEST COAST

About 50 beekeepers from all parts of the West Coast, mostly members of the West Coast Branch of National Beekeepers' Association, met at Mr. Joseph Bolitho's apairy at Black's Point on January 25th, under ideal conditions. The visitor was impressed with the well-laid-out grounds and buildings of Mr. Bolitho's place and the steps that have been undertaken to overcome difficulties of access. The field day was most interesting, even to those who had little interest in apairy work, but to those who were taking up beekeping there was an excellent opportunity to learn from experts and to discuss with other beginners their mutual problems.

The President, Mr. E. Airey of Greymouth, opened the day by introducing Mr. Bolitho, who said he was "too hot and bothered" to reply. Miss Wilma Bolitho, in a very pretty speech and welcome, handed over the apiary to the association. The President then introduced the bee-inspector, Mr. Perry, who throughout the day was available to all in any manner he could serve. Mr. Ilton of Poerua, gave the first demonstration—opening several hives and explaining the condition of the bees—the bees at this stage showed a very strong desire to defend their hives; several visitors, including myself, gave the little blacks a wide berth for a while. Then Mr. Perry gave a very enjoyable talk on section honey production, from which we learned several good hints. After lunch, we were treated to an interesting address by the President, on "The History of Beekeeping on the West Coast"—a valuable suggestion of his being that a book be written or record kept of the history of beekeeping on the Coast. He dated back as far as 70 years ago when bees were first kept on Coal Creek Flat. Much amusement was afforded all when he, through old paper cuttings, etc., reminded some of the older beekeepers present, of the enthusiasm and hot-headedness of their youth. A point of interest was the New Zealand Conference was held in Greymouth in 1925. Mr. Alf Baty, Coal Creek, then followed with a demonstration and lecture on Queen rearing as applied to West Coast conditions. (We certainly agree to the general expression of the wet West Coast). He pointed out the value of good Queens in the hives and demonstrated the Stewart method of Queen raising.

The secretary, Mr. Ralph Glasson, of Blackball, showed us four hives, demonstrating (1) a good Italian Queen, with brood from corner to corner. (2) A drone-laying Queen. (3) A laying worker hive. (4) Queen cells being raised. He then gave an instructive address on "West Coast Nectar Source," from the honey-dew of birch, to willow, fuschia, blackberry, rata, etc. Much time and thought had gone into these demonstrations and the honeys of several sources were displayed and freely sampled.

Mr. Phil Martin of Ahaura, then carried on with an address on "Splitting of Colonies for Increase." Very strongly did he stress the necessity of strong colonies at the correct time of the year. Mr. Martin's experience of bees is wide, having kept them in Nelson, Marlborough and Canterbury districts, and of course is still beekeeping on the Coast.

Ashley Groom of Kororo, demonstrated with Mr. Martin a quick and practical method of wiring frames which drew much favourable comment. Then Mr. E. Airey (junior) gave demonstrations on the latest methods of preparation of hives for transport over long and short distances.

Afternoon tea, supplied by our host and hostesses, was much enjoyed, after which was time for an "open discussion." One of the main points of interest to all was Mr. Cochrane's motion, which was seconded unanimously, that owing to destruction of forest by opossums, that the Minister of Internal Affairs be approached re their complete extermination.

The afternoon drew to a close with a vote of thanks to the demonstrators by Mr. Airey and a hearty vote of thanks to the host and hostesses Miss Wilma Bolitho again acting for her father, returned the compliment and said we would all be welcome again next year if we wanted to come. There was no doubt we all received a good old West Coast welcome and we

would like to publicly thank the Bolitho family for their kindness in working so hard to make the day the success it certainly was. Great credit is due to the President, secretary and his committee for the excellent preparation and organisation which enabled us all to enjoy such a profitable day.

—Mrs. Dunwoodie.

### SOUTHLAND.

The southland branch of the National Beekeepers' Association held a field day at Mr. W. J. Cawthron's apiary at Riverton recently. About 40 persons attended and they asked the demonstrators many questions as the display proceeded.

Mr. A. A. Lennie, the branch president, outlined the programme and urged all interested in beekeeping to join the association and further the craft.

An apiary instructor from the Department of Agriculture, Mr. I. Forster, removed a super of honey and outlined the methods in general use for the operation. Mr. Forster then explained early spring colony management and various ways of artificial feeding. He also demonstated colony manipulation for swarm control.

The party proceeded to another section of the apiary where Mr. Cawthorn uncapped and extracted, while Mr. C. Griffen explained the various operations. Mr. W. J. Watson, Winton, demonstrated general methods of queen introduction, and Mr. C. Griffen spoke on the taking off of the last round of honey and closing down for the winter.

Spring dwindling was dwelt on by Mr. Foster, who said that the Department of Agriculture's research officers had definitely identified the cause of much of the trouble. Mr. Lennie then displayed a bumble bee nest, while Mr. Forster explained the life-cycle of the bumble bee.

A "brains trust" comprised Mr. W. Caldwell, Roslyn Bush, and Mr. C. Larson, Myross Bush, two old beekeeping identities, and many questions were answered.

—L. K. Griffin.

## NATIONAL HONEY SHOW ENGLAND

Empire exhibits may be sent to the show it is hoped to hold in September or October, 1947. The only particulars given are that membership is 5/- per individual member or 10/- per corporate society and extra for entry.

The Secretary:
The National Honey Show, Ltd.,
F. H. LAWRENCE, ESQ.,
3 St. Marks Place,
Wimbledon,
LONDON, S.W. 19.

# NOSEMA DISEASE OF HONEY BEES.

By E. E. Edwards, D.Sc., Chairman of the Welsh Beekeepers' Assn.

## SYMPTOMS OF THE DISEASE.

Nosema infection cannot be diagnosed with any degree of certainty from the external symptoms shown by affected bees. The presence of the disease may be suspected when a colony seriously dwindles in numbers, especially if the weakening occurs in the Spring at the time when the colonies should rapidly be gaining strength. This dwindling may continue for several weeks and then suddenly stop, only to recur the following Spring.

Affected bees in advanced stages of the disease often appear sluggish with a tendency to remain within the hive or crawl about the entrance and on the ground on fine days when bees from other colonies are flying hard. In contrast to bees infested with Acarine Disease, they do not usually loiter, however, in large numbers on the alighting board, or mass together here and there in clusters on the ground in the vicinity of the hive. In the case of a serious outbreak of Nosema in a colony, a considerable number of bees may be seen on the ground in front of the hive either dead or lying on their backs with their legs moving feebly.

## CAUSE OF THE DISEASE.

Nosema disease is caused by Nosema apis, a parasite microscopic in size and living in the tissues which line the true or chyle stomach of adult bees. Workers, drones, and queens are liable to suffer from the malady. At one stage of their lives the parasites become spores, each a minute body, encased in a hard protective coat or shell. The spores pass out of the bees in the faeces which are sometimes voided within the hive or on the combs, but normally outside during flight. When voidance takes place over stagnant water used by bees for drinking, the disease quickly spreads throughout the entire colony. The spores enter the body of the adult bee with food or water and in the stomach the digestive juices dissolve away their shells. The parasites thus liberated invade the walls of the stomach where they feed and increase greatly in numbers. Some time later the parasites develop once more into spores and so complete their life-cycle.

In most virulent outbreaks of the disease, another microscopic parasite, Malpighamoeba mellificae, is often present. This amoeba lives in the Malpighian tubules, the excretory organs of adult bees. Here the amoebae multiply at a rapid rate, eventually forming cysts which pass from the tubules into the intestine. The cyst, like the spore of the Nosema parasite, is a resting stage and becomes a source of infection, especially if the contaminated excreta falls on the food or water used by healthy bees.

## DIAGNOSIS OF THE DISEASE.

The only reliable method of detecting Nosema or Amoeba infection in a colony is to dissect about 20 bees and examine microscopically the contents of the stomach and the intestine for the presence of the parasites. The bees for this purpose should be collected from active workers on the frames or alighting board or from those showing some indication of disease but not dead. It is important to carry out the examination as soon as possible afterwards.

## CONTROL OF THE DISEASE.

Whenever an outbreak occurs in an apiary, the beekeeper should endeavour at once to stop it spreading to healthy colonies.

1. **Robbing and Drifting**—All possible precautions against robbing and drifting of bees should be taken since infection is readily disseminated by contact between affected and healthy bees.

2. **Drinking Water** — Abundant supplies of clean fresh drinking water should be provided for the bees, in which common salt (sodium chloride) has been dissolved, an ounce to every 6 gallons of water. The drinking fountains should be

modern in type, easy to clean, and located in a sunny, sheltered part of the apiary. The spores of Nosema apis in water exposed to bright sunlight are destroyed in about three days.

It is difficult to attract bees to new locations for their supplies of drinking water, but the addition of common salt to the water and placing the drinking vessels in direct sunlight generally proves successful. As an added inducement, it is often advisable to burn a piece of healthy comb, preferably one containing some honey and brood, directly above the drinking vessel and in such a way that the drippings drop into the water. This should be done on a sunny day when the bees are flying freely in the immediate vicinity.

**4. Treatment of Hives**—After an outbreak of disease, the interior of the hive including floor board, brood chambers, supers, division board and roof, should be scorched with a painter's blow-lamp and the outside of the hive scrubbed well with a strong solution of chloride of lime and then repainted or re-oiled. All the quilts, combs and dead bees should be burnt.

**4. Treatment with Sulpha Drugs in Syrup**—Then follow details of experiments with certain sulpha drugs on which a final announcement has still to be made this year. When this comes to hand we will make a further statement.—[Editor, The N.Z. Beekeeper].

## MORE BEES WANTED.

The public has suddenly awakened to the need for more bees in pollination. The common use of arsenicals in some sections and the intensive cultivation of the soil in others, have destroyed many of the solitary insects which had served pollination needs in the past. Once destroyed, such insects reappear very slowly. Since honeybees are the only insects whose numbers can be readily controlled they are in such demand as never before.—"American Bee Journal."

# INTERNAL MARKETING DIVISION
## (HONEY SECTION)

### WHAT IS THE FUTURE FOR HONEY MARKETING ?

This problem is one which is exercising the minds of producers not only in New Zealand, but in Australia, Canada and the U.S.A. and in reading the Beekeepers' Official publications from these countries, it would appear that they are attaching far more importance to the future prospects than the producers in New Zealand. It would also appear that the overseas producers have never had the organised marketing until the war years and during these years they have seen the advantages of working together to maintain supplies and markets, so much so, that they are jumping by leaps and bounds far ahead of the New Zealand producers, who at present, appear to be drifting into a period similar to those which destroyed their previous attempts at Co-operative Marketing.

There is no need to waste time and space here, reiterating the reasons for the failure of the Honey Producers' Association and New Zealand Honey Limited—they are well known to all beekeepers and as such, should be a guiding influence on the industry to-day. Unfortunately, some producers cannot see the folly of completely ignoring their present Marketing Organisation. They admit quite voluntary that it will be necessary again very shortly, but are not prepared at the moment to support. What would happen in the industry, if those few loyal supporters suddenly downed tools and advised the Government that the Packing Plant was no longer required?

One can picture a general upheaval from the majority of the beekeepers, and I say majority from the experience of talking individually to beekeepers.

When you consider that there are approximately 500 commercial beekeepers, who could quite easily send in one ton of honey per year and this quantity would at least keep the plant in operation and working order until such time as the production again exceeds the demand.

Talking of production exceeding the demand, the following figures will help some producers to give further serious thought to the future.

Pre-war, it was estimated that the consumption of honey was approximately 3 lbs per head per year and this would mean a total of approximately 1900 tons per year. Now, according to the latest estimates of production from the apiary instructors in each district, the consumption has jumped to 6 lbs per head, exactly doubled. This, particularly when you take into consideration that honey is unprocurable in the shops of the main cities, is a very big increase and one which gives food for some serious thoughts.

How is this quantity consumed in the country areas—or is it? Will it continue to be consumed when sugar rationing is discontinued?

One would like to believe that the consumption of honey has increased to this extent, but commonsense will not allow it, a terrific quantity of honey must be finding its way into manufacturing hands which will drop it as soon as they can buy sugar for their full requirements.

Another thought is that through all this honey disappearing in country areas, the housewife in the city areas, who was the valued customer before the war, is now being neglected and even by now may have found a suitable substitute for her table, and therefore a valuable market may have been lost for the future, by a very short-sighted policy and also a very bad system of distribution.

Having carefully digested all this, the beekeepers should give serious thought to the question of honey supplies for everybody and not just a favoured few. The city folk are entitled to their supplies and if the

producers will not assist in this urgent case of equality in distribution, then they cannot expect any Government to assist them.

No country can afford to have a one-sided form of distribution of its essential foodstuffs and if such a state continues, then the only logical course left is to import from other countries.

**Purchase of Seals.**

Producers are requested to add exchange to their cheques when forwarding payment for seals or stamped lids.

**Honey Supplies.**

The quantity of honey to be handled this year will again be small and this makes it difficult to allocate to all the urgent requests received. It has been decided to cater for the main Public Hospitals and essential industries, any balance to be sent to the United Kingdom.

H. F. STOUPE,
Manager, Honey Sec.

## BEEKEEPING IN AUSTRALIA

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The Editor, P.O. Box 20,
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## PRODUCTIVE SOIL

### NOT AN ACRE TO WASTE.

There is no longer an abundance of good productive land to feed and clothe the peoples of the world, said Hugh H. Bennett, chief of the Soil Conservation Service of the United States Department of Agriculture, in a recent address. In fact, there was not a single acre to waste. Through the reports of 36 countries on soil conservation, it was known that soil was scarce throughout the world. There was barely enough to take care of the present populations if it were properly used, but it was still not being used properly.

In the United States alone, said Mr. Bennett, 230,000,000 acres of soil had been ruined by poor cultivation or allowed to be devastated by erosion. The United States had only 460,000,000 acres of good farm land that would be sufficient to feed and clothe the population, if the soil was conserved and if the population became stabilised. Stabilisation did not seem likely in the near future.

Industry and labour, as well as farmers, had a large stake in their country's soil. Business men and industrialists to-day were rightly concerned about their nation's productive soil and water resources.

## HONEY HOUSE PLANS.

This time, a plan is considered where all work is conducted on the same floor level. Like the plan of the perfect home, it will appeal to some while others will dislike it. From almost every viewpoint, this is the best plan yet considered and could be counted on as a most useful guide.

It is designed to handle the honey from apiaries having from 300 to 450 hives and to be operated by a man and his assistant. It is compact to the point of being crowded but this can be explained by a natural desire to save in building costs. On the other hand, the building is laid out to save labour, and, what is more important, there is a place for everything. Provided that everything is kept in its place, there should be no trouble in running the place as a model honey house.

Some beekeepers have electric power and some have to depend on engine and steam power. Modifications require to be made, according to the power used, but the plan is adaptable enough to make any type of power applicable.

A honey house is like a washouse in some respects. If there is too much space it tends to get cluttered up with non-essentials. If there is not enough space, working conditions are too crowded. Readers can expand or contract the sizes given according to their liking.

**Construction.**

The plan is a simple one. It is virtually a rectangle with a small projection. Any competent worker could erect the building, in the material desired, without encountering construction problems. A hip roof gives the greatest strength with probably the best appearance. The ridge line in this case would run on the line A-B. Ample window space is provided where it is most needed. The garage floor of course is sunk to bring the lorry deck level with the main floor. The floors of the two front storerooms may also be kept down to the garage floor level and so save steps and storage space. It would be an advantage if the ground slopes downward slightly on the garage side, away from the building.

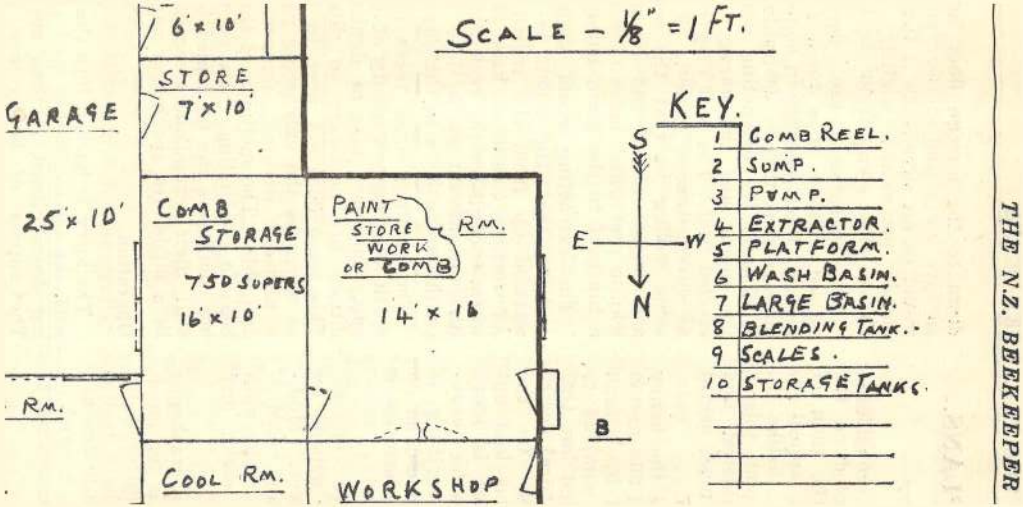
All operations are departmentalised. There is a room for each piece of work, because in honey house management this is desirable. If it is desired, the extracting and packing rooms and the garage may be erected first. The rest may be added as circumstances permit. To make some saving in cost the workshop and "spare room" can be under a lean-to roof which looks in order with a hip roof to the main building.

The extracting room should face east so that the room is quickly warmed up from the morning sun. As working conditions keep the room warm enough for the rest of the day, it is an advantage to lose the sun on this room later in the day.

The packing room faces east and north and receives plenty of light all day. The very best of lighting conditions are necessary in this room. This room does not need to be kept as warm as the extracting room but a pleasant working temperature is desirable. The methods of the honey bees in controlling their own working conditions can be copied here. As well, their scrupulous cleanliness can be a model for the honey packer.

**Operation.**

The lorry is backed into the garage with the load of honey and the sliding doors closed, if bees are about. The supers of honey are wheeled either directly to the extracting room or to the warming room, or both, as needed. Sliding doors of adequate width give easy access to both rooms. Some beekeepers have a small stand with a drip tray on which each pile of supers is placed in the apiary when loading. A bag barrow with a long tongue is pushed up to each stand which is lifted and wheeled where necessary in unloading. This useful method saves a lot of back-breaking labour and prevents messy conditions on floors. These stands are very useful in the warming room as they catch drips of honey and make the transfer of supers to the extract-


SCALE – 1/8" = 1 FT.
6' x 10'
STORE
7' x 10'
GARAGE
25' x 10'
COMB STORAGE
750 SUPERS
16' x 10'
PAINT STORE WORK OR COMB RM.
14' x 16
RM.
COOL RM.
WORKSHOP
B
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S
E
W
N
1 COMB REEL.
2 SUMP.
3 PUMP.
4 EXTRACTOR.
5 PLATFORM.
6 WASH BASIN.
7 LARGE BASIN.
8 BLENDING TANK.
9 SCALES.
10 STORAGE TANKS.

ing room as easy as from the lorry because the same use of the bag type barrow is possible.

Stacks of full supers are placed near the uncapping bin in the position best suited to the operator. As combs are uncapped, they are placed on the comb reel or rack which is conveniently placed both for the uncapper and the operator of the extractor. Honey from the extractor runs into a sump (2) as does the honey that drains from the bin and the reel. A pump (3) lifts the honey to any of the settling tanks. The sump is placed so that it is under the observation of both the uncapper and the operator of the extractor.

The uncapping bin may be a large box with mesh trays to catch the capping, or a melter of the Brand type or a hot plate that melts the wax as it runs off. The combs may be uncapped by knife or plane or by a mechanical uncapper. The sump should have a rough strainer in the inlet end of ¼ inch mesh to remove the bigger pieces of wax. One or more baffle plates can separate the rest of material to be strained out. A carefully controlled steam jacket around the sump should heat the honey to not more than one hundred and twenty degrees (120) at which temperature it is pumped to the settling tanks. A salt bag at the outlet to the settling tank should collect any small particles that are left in one ton of honey, unless the honey has exceptional thixotropicity. The sump should hold about two hundred pounds of honey and the pump should be geared to take the normal flow of honey into the sump. A set of triple pulleys on drive and pump shafts, having three different speeds, with the centre one for normal pumping, are an advantage. With Vee-belt drives these can be bought in standard sizes. The platform (5) is not necessary if the sump is let down into the floor as the extractor can then be placed on floor level. Some beekeepers prefer the sump on the floor and the extractor raised accordingly. A wash-basin (6) is placed beside the extractor, and a large sink is handy for washing utensils and wax blocks. A conveniently-placed cupboard is a great convenience for overalls, spanners and the odds and ends that seem to be needed where they can be found at any time each day.

Notice that plenty of light is provided right along the wall of the extracting room, where the work is done and where adequate lighting is necessary.

Two men may work at the uncapping bin if necessary and if a second extractor is required it can be placed beside the first where the wash-basin is shown. Steam lines may be taken along the wall under the window but preferably along the ceiling and down where required. The drive for machines, if not direct-coupled with gear-box reduction, should be from above for easy access.

Empty supers are placed back on stands with drip trays and wheeled either back to the lorry or to the comb room.

The warming room can hold three tons of honey in supers. Entry is to the middle from the garage and the exit is by either of two doors into the extracting room. The extra door is optional. The extra door enables the honey to be removed from either of two sections so that the room can be refilled without waiting for it to be completely emptied. The room is heated to about 100 degrees either by steam pipes or preferably by an electric element and fan combination thermostatically controlled.

In this plan the settling tanks hold three tons of honey and they are in view from the extracting room, and by a window from the packing room as well. These tanks can be built around with insulated walls, as in the warming room for the supers of honey, so that the honey is held at 98 degrees while settling. No starter is added to these tanks. They are to hold liquid honey only while it is clarifying.

**Packing Room.**

This room should be the finest in the building — the "sanctum sanctorum." Every care should be taken to have it as clean and free of dust as an operating theatre. The finest sweet in the world deserves to be packed under the best possible conditions. It should be painted and enamelled at least to door height. Containers may be kept in cupboards

under the tank stand and packing bench, after they have been unpacked from cases or sacks in the storeroom.

The blending tank (8) should hold about one ton of honey and have a mechanical stirrer, driven at about twenty revolutions per minute to incorporate the starter thoroughly and to keep the heavier and lighter honeys from separating while packing. The honey may be gravitated from the settling tanks or run to another sump and pumped up to the settling tank. If the honey is all of one grade the tanks may be interconnected, and the honey to the settling tanks drawn always from the nearest tank. This gives the utmost benefit from clarification by settling as the honey is received by the furthest tank and flows through each tank as through a series of baffles. It has the disadvantage of slight leaks from each union and stopcock at the connections between each tank, as well as the risk of difficulties if granulation should start in the series of tanks from unforeseen circumstances, that have been known to occur before to-day.

The safest method, and the only one when honeys of different qualities have to be blended, is to run the honey from gates to a chute that leads to the blending tank.

**Cool Room.**

When the honey is packed it is stored for two or three days in the cool room to encourage rapid and fine granulation. The starter honey is kept in a prepared state in the room and taken to the packing room as required.

**Boiler.**

A small steam-pressure boiler of two or three H.P. is of decided advantage to any honey house, even if every modern "inconvenience" is available in electric heaters and points. Where no electric power is available, they are indispensable.

This plan offers little scope for criticism. Each unit is balanced to the next unit so that the utmost efficiency is attained with the minimum of effort, and that is most desirable in any work place.

## NOSEMA.

Elsewhere in this issue we publish part of an article from an overseas magazine dealing with the diagnosis and treatment of Nosema in honey bees. Dr. Edwards appears to have made a most exhaustive study of the symptoms and to be recommending a more comprehensive course of treatment than is usual. If what he recommends as controls proves to be necessary, then the fight against Nosema takes on the character of the battle against American Foul Brood. Should hive parts require to be scorched and boiled, the problem for the commercial producer is a huge one. Dr. Edwards has been carrying out tests with certain sulfa drugs since 1945 and we await the final report with interest—and hope. The Russians have been experimenting with the drug Gramacidin to control Nosema and supplies have been secured by Australia, in their exchange system with Russian scientists.

All reports so far from overseas, particularly from Rothamstead, England, and the Department of Agriculture, U.S.A., do not hold out any hope for much success in controlling Nosema by sulfa drugs. · Results of work in New Zealand last season, under the Department of Agriculture, confirm these reports. This is not to say that further investigation and experimentation will not yet discover a satisfactory drug.

Dr. Edwards's statement that Malpighamoeba Mellificae — another parasite — has been found in the excretory organs of bees infected with Nosema, is the first we have seen reported in recent years. This parasite has so far not been found in infected bees in New Zealand.

Extravagant claims have been made by certain beekeepers in America that sulfa drugs can cure bacillus larvae. From their statements, it would appear that foul brood is as easily cured as is the common cold by taking certain cough cures. It has to be recognised that the action of sulfa drugs is to create conditions that inhibit the growth of the disease. The drug does not kill the disease but its use enables the subject to build a resistance to the further growth of the disease. One interesting sidelight common to these reports is that the bees appear to be livelier—that Kruschen feeling !—after the feeding of the drug. It may have been that Nosema or some other parasite was present, but undetected, and the feeding of sulfa drugs has enabled the bees to fight it with success, thereby improving their health.

Beekeepers do not need to feel that it is time they did some experimenting in their own way. Scientists throughout the world are working to discover a cure for Nosema and, if one is discovered, the knowledge is immediately made available to all. There seems to be hope in the sulfa group, but it could just as easily lie in other directions as might be indicated in part of Dr. Edward's statement. Beekeepers should be warned against the amateur experimentation with certain drugs. Ill-advised meddling might easily lead to public reaction against drugged honey. We hope that Mr. Palmer-Jones, who is research officer for the Department of Agriculture in New Zealand, will be able to report on Nosema Research to conference.

## RED MITE CONTROL

While in Hastings, the Minister of Agriculture (Mr. Cullen) gave an assurance that everything possible was being done to obtain the fullest information concerning the red-legged earth mite. Mr. Cullen said that when he assumed the portfolio of Minister of Agriculture the red-legged earth mite was one of the first things for which he had called for reports, as he had first-hand knowledge of the damage which the pest had done. In an article in the Journal of Agriculture, Mr. L. J. Dumbleton, Entomology Division, Department of Scientific and Industrial Research, states that the occurrence of the mite at Gisborne and Wairoa, and in a large area at Napier, makes it unlikely that complete eradication can be achieved, as the mite probably occurs, as yet undetected, in other areas. The experience of market gardeners in Australia, he adds, does not indicate that this pest will be a critical factor in production.

# N.Z. HONEY CONTROL BOARD

As the Beekeepers' Annual Conference and also that of the I.M.D. Honey Suppliers will be held within a few weeks of this issue of the Journal reaching the beekeepers, no good purpose would be served by the Board traversing the several issues that will be important subjects of discussion when the beekeepers meet.

The Board offers no apology for having supported the I.M.D. Suppliers' Committee in their successful application for a revised procedure in the matter of the pay-out from the I.M.D. Honey Section when it could be clearly demonstrated that the proposed new basis would operate to the advantage of suppliers.

Much of the criticism is destructive in character and comes from quarters that have done little, if nothing, to establish any degree of economic security to either suppliers or non-suppliers to the Division. Any charge of inconsistency against the Board in its advocacy of policy governing the I.M.D.'s use of the reserve fund can be disproved completely if one will take the trouble to refer back to the annual addresses which I, as Chairman, have presented to the beekeepers during the past ten years. In order that there shall be no misunderstanding concerning the recommendations which the Board has made to the Government in connection with the I.M.D. and a reorganised Marketing Setup, the Board has had a number of copies of my address submitted to suppliers at the last annual meeting. These copies will be sent out—as far as the limited number on hand will allow—to suppliers who were unable to attend the Auckland meeting.

WALLACE NELSON,
Chairman, Honey Control Board.

# ECHOES OF LAST CONFERENCE

FROM A CIRCULAR, DATED 19/4/47, FROM THE GENERAL SECRETARY.

In response to further representations, the Minister of Marketing, writing on the 2nd April, has replied to various matters as under.—

**Conference Resolution.**

"That a full statement be made to the industry on the cost of management of the Honey Section of the Internal Marketing Division, together with a complete statement of the accumulation and distribution of the Seals Levy Fund."

**Minister's Reply.**

"The Internal Marketing Division publishes annually a separate statement of the Trading Account for the Honey Section. I am quite happy that any committee working in an advisory capacity with the Division should have full details of all the accounting and reserve transactions, but you will appreciate that it is not possible nor sound business to make public all the details of a trading activity."

**Resolution.**

"That the policy of the Honey Section of the Internal Marketing Division be controlled within limits by a board of three directors elected by all honey suppliers."

**Reply.**

"It is not practicable under legislation to divest the Minister of the responsibility for any marketing activity taken by the Division, but I can advise you that steps are being taken to set up an advisory committee whose purposes will be in conjunction with the Division, to assist in the efficient marketing and distribution of honey received by the Division and to advise me on any appropriate matters connected with marketing."

**Resolution.**

"That to make conditions acceptable to the majority of producers, a principle of a subsidy be introduced to enable returns to producers supplying the Internal Marketing Division to be increased to a satisfactory basis."

**Reply.**

"The question of subsidies has already been dealt with insofar as this season's supply is concerned, by an arrangement whereby funds from current seals income will more nearly relate prices paid by the Division to its suppliers to those obtainable under the present Honey Price Order. Any recommendation for a further subsidy on cost of production would need to be submitted, supported by a full statement of costs in order that the Economic Stabilisation Commission could consider and recommend any action."

**Resolution.**

"That the whole of the proceeds of sales, together with subsidy, be paid in full to suppliers as soon as possible at the close of each year's operations, providing reasonable trading reserves already collected, are held."

**Reply.**

"This is answered somewhat in the above paragraph, in that marketing returns, plus current seals revenue up to a maximum will be paid out this year, and I am in complete agreement with your request that prudent trading reserves must be maintained."

**Resolution.**

"That the disposal of unwashed honey tins be prohibited." (This matter has been brought up previously and your reply to our representations has been noted. It is still felt however that there is a potential danger in unwashed tins being distributed throughout the country and action to prevent this risk would be greatly appreciated by producers generally).

**Reply.**

"As mentioned to you previously, it is not practicable at the moment to arrange for the washing of all reused honey tins before resale, particularly in view of the present practice of beekeepers receiving empty containers through the post and forwarding honey by the same manner to all parts of the country."

At their meeting held in Wellington recently, the General Executive passed the following resolution concerning the Minister's public announcement regarding payment for supplies forwarded to the I.M.D.— "That this Executive of the National Beekeepers' Association of New Zealand Incorporated expresses its surprise and further, wishes to register its protest against the action of the Minister in making a public announcement concerning honey prices as the result of representations by the Suppliers' Association, through his officers, when our organisation had been pressing his predecessor for an increase for the past three years and having in mind the fact that the Minister already had correspondence on the matter before him from the National Association."

To this resolution the Minister has replied as follows.—

"With regard to your last paragraph and the resolution passed by your Executive at its last meeting, I would point out that the Honey Suppliers' Association made representations in the proper manner through me to the Economic Stabilisation Commission. Their case was considered to be a sound one by the Commission, who recommended to me that it should be approved. This is the first occasion on which anybody has put up a definite recommendation, backed by facts which could be seriously considered by the Commission. It was therefore only reasonable that this fact should be mentioned when the announcement of the decision was made publicly.

**Removal of Subsidy on Sugar.**

Most members will be aware of the recently-announced intention of the Government to discontinue paying the subsidy on sugar supplied for other than domestic purposes. In this respect representations have already been made to the Minister for an assurance that beekeepers will not be called upon to pay increased costs on sugar for feeding purposes.

**Branch Returns.**

Branch secretaries are reminded that their final returns for the current year which ends on the 31st May, must be posted in ample time to reach me BEFORE that date. Remittances received after the 31st May cannot be included when the voting strength of branches for the forthcoming conference is being computed.

# HISTORY — 1938.

## ADDRESS BY MR. WALLACE W. NELSON,

**Chairman and Government Representative of Honey Control Board.**

Delivered at Conference of National Beekeepers' Association at Timaru on 1st June, 1938.

(From "The N.Z. Beekeeper," Jan., 1939.)

As you are aware, the present members of the Board, Mr. H. R. Penny and Mr. L. F. Robins, as producers' representatives, and myself as Government representative and Chairman, were appointed to office about two months ago, following the resignation of the former members, Mr. J. R. Butland, Chairman, Mr. P. A. Hillary, and Mr. W. Watson. Although the Board's term of service extends over a very short period, I am pleased to be able to report that, acting in close co-operation with the Internal Marketing Department, considerable progress has been made towards the complete reorganisation of our marketing system along lines that have for many years been so strongly advocated by producers.

The unity that has so long existed among producers on the subject of marketing, as evinced by resolutions passed by commercial beekeepers in all the principal honey producers' centres, leaves no doubt as to the producers' viewpoint on the methods that should be applied to establish a stable, orderly market for our produce. It is hardly reasonable to expect any change in our marketing system to have the support of those who believe they have nothing to gain and something to lose under the new arrangement. All too frequently we find evidence of political propaganda based on misrepresentation of the real facts at issue being used with marked success against the best interests of the producers.

I feel, therefore, that I should take advantage of this opportunity to give a brief review of the record of the honey producers' efforts to establish an organised market and better methods of handling our produce—designed to give a greater measure of security to the producers and to offer a more uniform and better processed honey at as low a price as possible, consistent with a fair return to the beekeeper.

The first real move towards cohesive action among honey producers appears to have occurred about 1912. With the passing years the producers' marketing difficulties became greater, and this intensified the efforts of the honey industry for legislative action. In 1925 the Massey Government passed the Act providing for the setting up of the Export Honey Control Board, but this gave only a very limited measure of protection to the industry in view of the fact that approximately 80 per cent. of our produce is sold on the local market, over which the Act did not apply. The producers, therefore, have consistently pressed the Government to amend the Act on terms that would permit co-ordination of the Export and Local market under one controlling authority responsible to the Government. A sympathetic move was made by the present Government in 1936 when the Executive Commission of Agriculture held an open enquiry in Auckland and Christchurch on the subject at issue. The three beekeepers' organisations, namely, The National Beekeepers' Association, The Export Honey Control Board, and N.Z. Honey Ltd., jointly prepared a case that received practically the unanimous support of the producers they represented.

I think it will be generally agreed that the two most vital clauses in our case were the following:—

(1) That it would be in the interest of the producers that the controlling authority should take over the assets of N.Z. Honey Ltd. at an agreed valuation.

(2) That the whole of the marketing, both local and export, to be under the supervision of one authority, and that the whole of the honey sold by that authority to be pooled and payments made according to grade and irrespective of where the honey is sold.

As the Government was not prepared at that time to accept actual marketing responsibility, and there was no indication of their intention to do so, it was proposed that the "authority" should be vested in a new Board, who would be responsible to both the Government and the producers. However, with the coming into existence of the Internal Marketing Department some time later, it became obvious that the necessity for the creation of a new Marketing Board did not arise, and producers generally approved of the official announcement that the Internal Marketing Department would accept marketing responsibility in the disposal of our honey.

The legislation required to give the Internal Marketing Department this power was embodied in the Primary Products Marketing Act, passed by Parliament last December. The Internal Marketing Department was then given authority to take over the assets of the producers' marketing company—N.Z. Honey Ltd.—and to co-ordinate the local and export selling, thus making possible a pay-out to suppliers from the pooled returns of both markets.

Two of the principal clauses in the proposals presented by the three beekeepers' organisations were therefore given effect to. There remains, however, still much to be done before the marketing system favoured by the producers is established in its entirety. The most pressing problem is that of unrestricted competitive selling by individual producers against the Internal Marketing Department.

Producers have just experienced a season of plenty, and it can hardly be disputed that the improved stabilised conditions of the market have only been made possible by reason of the operations of the Internal Marketing Department. The non-supplier to the department is therefore obtaining the shelter of the Marketing Department's protection without any cost to himself. The Board is unanimously of the opinion that

prompt measures should be adopted to effectively deal with this unsatisfactory position. The Board considers it to be unreasonable to expect the Internal Marketing Division, over a period of successively good producing seasons, to maintain a payable price to producers without risk of too great a carry-over of honey stocks.

With a view to obtaining fresh outlets for our honey, and generally increasing its consumption on the local market, the Board considers that a well directed advertising campaign, emphasising the food value of our product, should be undertaken by the Internal Marketing Division with the least possible delay. The Board, however, is emphatic that the cost of this advertising should be spread over all the commercially produced honey, and should on no account be loaded solely on to the honey handled by the Marketing Division.

The Board is of the opinion that **all producers selling outside the Division should be required to affix a stamp on containers of honey on a basis of ½d. per lb.** These stamps should be procurable from the Marketing Division or its agents, and the sum collected to be handed over to the Honey Section and **used principally for advertising.** The stamps are not intended to denote the grade. On the producer or merchant packer should rest the onus of labelling his containers in such a manner as to clearly define the contents. Provided the stamp system is accepted, the Board is rather adverse to any restrictions on the individual packer, as it is feared that any move in this direction would involve the Division in the responsibilty of being obliged to accept from the producers honey they were unable to sell at the price fixed. Acceptance of such honey would load the Division with a great variety of retail packages and brands that could only be sold at a heavy discount under the price quoted for the Division's standard brands.

A considerable body of producers have advanced proposals to require all commercially produced honey sent forward to the Department's Central Depot. The Board believes that, ultimately, practically all the producers will send forward their honey voluntarily, for the rate of development in modern methods of preparing honey for the trade is fast reaching a stage where no single producer will find it profitable to instal the plant and appliances required to meet the demand of the trade which it is reasonable to presume will become more discriminating as honey becomes more firmly established as a staple food.

It must be borne in mind that no country in the world produces a greater variety of honey than New Zealand. In certain districts honey of unblendable and distinctive flavour could only be accepted by the Marketing Department at a price showing a most disappointing return to the producer. Under existing conditions those producers are able to dispose of this honey in their own territory at a price that makes its production just worth while. The Board feels that it would be extremely undesirable to establish marketing regulations that would virtually mean putting producers of that class of honey out of business. It should be mentioned that the volume of honey in this category is by no means great enough to discount the principle of the central depot handling all commercially produced honey, but there is enough of it to require special consideration being given to its disposal and to those who produce it.

I may say that encouraging progress has been made by the Cawthron Institute in its efforts to find a process that can be commercially applied for eliminating undesirable flavours in honey.

A further important point is that no reliable statistics are available as to the Dominion's total commercial production. Lacking this information, the proposal for the central depot handling all honey would seem to involve some danger of the Marketing Department being called upon to provide, without reasonable notice, adequate facilities to meet a totally unexpected demand from the trade. A honey processing plant and appliances cannot be purchased like ordinary merchandise. The requirements of a modern depot must be constructed under expert supervision to carefully drawn out specifications. The position and responsibilities of the Honey Control Board has naturally altered considerably under the new arrangements. In order to facilitate the co-ordination of export and local marketing along the lines I have indicated, the Board has formally passed over its export trading powers to the Internal Marketing Division.

In future the Board will be responsible to the Minister of Marketing, and will function as an advisory body to the Internal Marketing Division on all matters relating to the marketing of honey. The Board will assist the Marketing Division with any technical advice in its possession that may be helpful in the construction of plant, and in further improving the methods of handling and processing all honey that comes under the control of the Internal Marketing Division.

In a statement of the position read at the first meeting of the new Board in April, it was found that, at the 31st of March last, our London agents held in stock on our account 60 tons of Australian honey and 17 tons of other purchased honey. As you are aware the short crop last season was responsible for the Board receiving less than 100 tons of honey to meet an overseas demand for 600 tons. The 77 tons on hand at the close of March represented the amount still to be sold of the honey purchased by the late Board to meet the requirements of a certain established overseas trade. Now that we have ample supplies of New Zealand honey available, the question as to the best method of disposing of this purchased carry-over honey has been the subject of thorough investigation by the Internal Marketing Division.

As the Department is now responsible for the marketing of our produce I leave it to the Department's representative, Mr. Honeyfield, to deal with this matter in the course of his address. I wish it to be understood that the Board has been kept fully informed of the position, and that the policy decided upon by the Marketing Division concerning the honey in question meets with the entire approval and support of the Honey Control Board.

The Board's indebtedness to the Treasury now stands at £5,142/9/2. It was the intention of the late Board to pay £1,500 of this amount, but in view of the position

arising from the unexpected difficulties of last season it was found that the payment of this sum would tax unfairly the small amount of honey sent forward by suppliers. The Board therefore is applying to Treasury to have this repayment now due, together with a substantial portion of the amount still owing, written off, or if that is not possible to have the repayments spread over a longer period of years.

At the time the new Board took over, there was a sum of £344/1/3 in the Reserve Fund. The Board has handed this amount over to the Department to be paid out to last season's suppliers to the Board. The Board therefore commenced business with no reserve money held over from previous years.

The question of the Department accepting liquid honey has been closely studied at a meeting of the Honey Control Board with representatives of the Marketing Department and the Department of Agriculture. As you know, the existing regulations require producers to hold their honey until it granulates before sending forward to the grade store. In some districts the granulating process may take anything up to four months, and this involves some hardship on those producers requiring prompt cash for their honey. Producers, therefore, will be glad to know that it is the intention of the Marketing Division to accept liquid honey next season, provided such honey is packed in specified containers with leak-proof lids.

The Board has also made certain recommendations with a view to having honey packed in single tin packages. A trial shipment of honey in single tin heavy cardboard boxes is under way, and if reports from London are favourable, producers next season will be free to use this type of package instead of the two-tin wooden case. (Note: single-tin cartoons proved unsatisfactory. Two-tin wooden cases are therefore obligatory.—Editor.)

I feel sure that, when you have heard the address from Mr. Honeyfield, you will agree that the arrangements which the Internal Marketing Division propose to apply next season for the better handling of our produce represents a big step forward, and you will appreciate that the activities of the Internal Marketing Division have made possible a greatly improved outlook for the efficient commercial honey producer.

Of the many advantages that have already become evident as a result of the change over are the following:—

(1) Unified control over both export and local market, ensuring adequate supplies of honey to the best market offering.

(2) Prompt advance payment to producers of a substantial portion of the honey's market full value, plus a final distribution of surplus.

(3) Better provision for handling and packing, thus reducing costs.

(4) In better position to increase consumption of honey by suitable publicity.

(5) More stable marketing organisation, enabling long-range planning.

(6) Better able to co-ordinate the interests of producers and consumers.

(7) Stabilising prices, ensuring greater protection to producers.

In conclusion, let me add this:—

The Honey Section of the Internal Marketing Division, together with the Honey Control Board, exists solely for the purpose of serving the interests of the producers. Surely, therefore, it is to the advantage of the producers to give the organisation set up for their benefit the fullest support.

Costly past experience has taught the producer the folly of individual competitive selling, but I fear the real difficulty of bringing order out of a chaotic selling is not fully appreciated. It becomes doubly difficult, and sometimes almost impossible, for a Government to assist an industry where no organisation exists to represent it. This fact, perhaps, explains why the Hon. Mr. Nash, Minister of Marketing, in an interview with representatives of your organisation some eighteen months ago, counselled the honey producers to hold fast to the organisations they already possessed until the Government was ready to apply its policy and give practical effect to the beekeepers' request. The beekeepers have profited well by observing the Honourable the Minister's advice.

## MATING OF QUEEN BEES.

Mr. A. T. Myers, of Poolburn, Central Otago, reports the observance of mating flights of queen bees as follows:—

A batch of cells was introduced to nuclei and hatched on 28/12/46. On 7/1/47 one of the virgins was observed hovering in front of a nucleus hive at 1.25 p.m. She made a short flight up to approximately the height of house top, taking notice of location of hive whilst making gradually enlarging circles and almost immediately returning to the hive.

About the same time two other queens were observed making similar short flights from neighbouring nuclei, so I decided to take particular notice as to whether any further were made the next day about the same time from the first mentioned nucleus hive. I might mention that, had our season proved a normal one, there would not have been time to have made these observations.

Next day I took up a position near the nucleus at 1.15 p.m. and saw the same virgin fly out much faster than on the previous day to be quickly lost from sight high in the air, but returning two minutes later still with no signs of having been mated. Flights of only a few seconds' duration were made at 1.30 p.m. and 2.10 p.m., after which the queen still appeared unmated. At 2.27 p.m. the queen again left the hive and after making three or four large circles, disappeared out of sight high in the air.

Upon returning 11½ minutes later the white portion from the drone could be seen attached to the tip of abdomen as she entered the hive. After examining the nucleus daily, eggs were first observed on 11/1/47, which was the third day from mating.

## CORRESPONDENCE

The Editor,

Sir,

The present urgent need for a sound marketing policy for the industry in New Zealand would probably be adequately met if the Government were to take immediate steps to heed the advice of the Producers' own organisation, the N.B.A., which officially represents more than 80 per cent. of the commercial producers in the Dominion.

In recent times the Government has relied almost entirely upon the advice of the officials of the Internal Marketing Division who have never been connected with the production side of the industry.

The present marketing policy of the I.M.D. appears to be designed to suit producers in a fairly limited area of the Dominion, whereas the urgent need is for a long-term marketing policy directed for the benefit of the producers of the whole Dominion and not for one section only. The long-term success of such a policy must make provision for the re-building of our valuable market in Britain as it is quite evident that producers will not (and cannot be expected to) support any narrow-track marketing organisation which can offer in return payments for supplies on a minimum basis only.

It is high time that the Government realised that producers are not to blame for lack of supplies to the I.M.D. The cause of the trouble is the absolute lack of profit incentive accentuated by continually rising costs without compensating increases in the price schedule. This alone has forced producers to sell in the most profitable market.

A point which seems to be generally overlooked by the Price Tribunal and the Government also, is the fact that when stabilisation was first introduced, the Government stated definitely that not only would prices be stabilised, but that costs also were to be stabilised as at that date. This stabilisation of costs in the Dairy Industry has been met by a Government subsidy, but what about the Bee Farmer? Has the Government ever thought it necessary to consider his increased costs? No! The iron hand has said "no subsidy, no increased price," and yet the I.M.D. continues to piously urge producers to send in their honey for "sounder marketing and better distribution."

As said before, it is high time that the Government looked at the producrs' side of the marketing fiasco and paid a little less attention to the futile whisperings of their present advisers.

"IMPARTIAL."

---

THE EDITOR,
N.Z. Beekeeper,
Omakau.

Dear Sir,

Can you please publish a reliable and complete recipe for making honey vinegar suitable for the small amateur beekeeper? Published instructions that I have seen are contradictory and incomplete to the extent that one wonders whether the writers have ever done the job themselves.

Details of procedure are needed, such as suitable vessels for small quantities (everyone cannot make barrels full); what yeast to use (is dried, or compressed yeast suitable?); how is the second (acetous) fermentation started?); how long does it last, and when is the product completed?; what action is needed before bottling or storing?; what temperatures are necessary?; can the job be done in an unheated room, or must it be carried out in a warmed one?

One standard work says that the vinegar is ready "next winter," while another says "about two years" for maturity, but none say how to judge completion. One demands a temperature of 67 to 87 degrees (surely an impossibility unless in an oven), while another mentions "out of doors." As to completion, one authority instructs us to "heat and seal down" material which is apparently still in a cask.

A simple set of full directions, "as to a little child," would probably be appreciated by others as well.

Yours faithfully,

VINEGAR.

[The Editor would be pleased to receive a reply to this request and to pass it on to "Vinegar."—Ed.]

# NOTES FOR BEGINNERS

—BY SKEP—

## ON BECOMING A BEEKEEPER

"In the spring a young man's fancy lightly turns to thoughts of love."

And in the winter a young beekeepers' fancy lightly turns to thoughts of becoming a bigger beekeeper.

Skep recently received a letter from a friend in Australia who said it is reported that many beekeepers over there are making £1000 a year. The story did not seem so good when the writer later said that there beekeepers kept 1000 hives on the migratory system.

It is hard for beginners to know just whether beekeeping will give a good living. It is one thing to own a few hives and to get a good return from them as a sideline, but it is an entirely different matter to own hives to the number of several hundred to make a living from them. The returns most often quoted are the exceptionally good ones and it must be admitted that they sound attractive. One seldom hears of the average return, which is the important one on which to make estimates —and the average should be over five years at least. It is as well to know that sometimes a beekeeper gets little or no return in certain years. Skep knows of more than one beekeeper who had a nett income of nearly £600 one year and a nett income of a minus quantity the next year. So his average income over those two years was under £300 per year. £300 was nearer the average income of these men over a five-year period. They were neither hobbyists nor large beekeepers but the average beekeeper having between 250 and 400 hives.

So often one hears of the good time beekeepers have because the bees do all the work with some assistance from the apiarist for a few months. Then he has the winter free to do what he likes—if his wife lets him! It is as well to know that assets depreciate over the years and that as a man gets older, his capacity for hard work lessens and therefore his earning capacity. He may have to contend with disease; he has to learn to take the good seasons with the bad. Not only does he have to be a competent producer, he also needs to be able to manage his small factory; he also requires to be something of a businessman, if he is going to market his own produce. Not every man can be all three successfully. Nearly every New Zealander is an able motor driver and handy with tools, as an apiarist requires to be. Not many Enzedders have very much money to start with, but the established beekeeper in an average way of business requires to invest around three thousand pounds—more or less —before his business is established. Skep mentions these matters to warn the unwary optimist to "look before he leaps."

Briefly, there are two ways of entering the beekeeping business. One is to start with a few hives and gradually to increase the number out of income from work at a regular job, until one has about 150 or 200 hives. By this method, one's assets in material and experience are built up for a plunge into whole-time beekeeping. And it will be a plunge because the first year out may bring a good income or none at all. So look before you leap.

The other method is to launch right out as a beekeeper with at least 200 hives the first year and to increase them substantially the first year to at least 300, if that is one's approximate target. Of course, this takes money that has to be saved, inherited or borrowed, but it is the best method. This is wisest provided one has had the necessary experience with a commercial beekeeper. A training must come first, or the mistakes made can be very costly.

If one can buy into an established outfit, free from disease, in a good producing district, that is the best way to start. The material should be standard and in good order. Otherwise one must pioneer in a new area which has to be established and improved and that always takes time and money.

How much money do you think is needed? You might be surprised to

learn that the establishment cost of every hundred hives is about £400. On top of this is land and buildings, plant, and a truck. To set up with 300 hives and all the necessary equipment will cost anywhere around £3000 usually without a house. Sometimes one is fortunate in buying a complete outfit as a going concern but if one has ideas of building up with all new material, etc., a complete establishment with cost more nearly £5000.

The average return of honey is three tons for every hundred hives. On three hundred hives you could expect nine tons of honey for an average year.

Now it is for you to work out the rest. You must find out the transport costs, the container costs, and the general costs of operating the business. Get in touch with two or three established beekeepers and the Department of Agriculture instructors for advice and information. When you have everything worked out, send your little sum to Skep and he will comment upon it.

You might make £1000 income, on paper, but it will not be from 300 hives on the average.

If you refer back to the May issue of The N.Z. Beekeeper, in 1946, at page 11, you will find a lot of most useful information on the cost of establishing apiaries. This is a report prepared by the Agricultural Development Committee, which was set up to report on the scope for development and expansion of beekeeping in New Zealand. It is the best survey of the matter done in New Zealand in recent years.

**Publications.**

Skep hopes that beginners have Mr Winter's booklet and are carefully swatting it up this winter. While it is a fine thing to be practical, it is also necessary to be well informed. You will learn the first principals of beekeeping as well as their practical application by reading, working, learning and inwardly digesting the contents of this excellent manual.

One correspondent recently asked about Atkins and Robertson's book.

It is unfortunately out of print in the U.S.A., where it was published. Skep recently received two interesting booklets from the U.S.A. through the A. I. Root Co. They are: "Starting Right With Bees," by Rowe, Root and Deyell, and "500 Answers to Bee Questions," by Demuth. Both are published by the A. I. Root Co., and are priced very cheaply.

To secure literature from the U.S.A. you have to make an application to the Reserve Bank, through your local Post Office for a draft on Medina, Ohio.

By the way, there is news that the 1947 issue of ABC and XYZ is expected to be on the market towards the end of this year.

What about some more questions?

Hoping you winter well,

SKEP.

## BRITISH RURAL HANDICRAFTS EXHIBITION

The exhibition of the handicrafts of British craftsmen is on tour of New Zealand. There is a descriptive account in the "N.Z. Listener" of the last week in May.

Beekeepers will be interested to know that a Devon bee shief is included in the display. Just by the way, Mr. R. D. McEwan, who is in charge of the exhibition, served a season with a Southland beekeeper many moons ago. Mr. McEwan has much more imposing qualifications than this to warrant his presence with this exhibition. Quite apart from the bee shief, we think this display is well worth a visit from anyone who is interested in good workmanship beautifully executed.

Watch for particulars of its appearance in your district.

## A SWEETER SMOKE.

Mr. J. Fitton, of Marsden on the West, Coast, sends in a suggestion for breaking-in a new pipe. Smear the inside of the bowl with honey. This can be done about six times before filling and smoking, and there will be no hot burning. He says that there is no unpleasant taste and the smoke is a cool one.

We hope some reader will try this out and let us know the effects. We have no new pipe to try it on at present, but anything is worth trying once.

## CONTROL OF WASPS.

Two seasons have passed since wasps of the species *Vespa germanica* were first noticed in New Zealand in the Waikato district. Though these wasps are of the common sorts, they were a great nuisance to many farmers and housewives in the Waikato district last season.

It is desirable, therefore, in the public interest, to eradicate them if possible, while the infestation is more or less localised.

Success in their destruction can be achieved only with the co-operation of the public, and the information in this article, by the Horticultural Division of the Dept. of Agriculture, including a photograph of a nest secured by Mr. C. R. Paterson, Apiary Instructor, last season, should be sufficient to enable wasps and their nests to be identified.

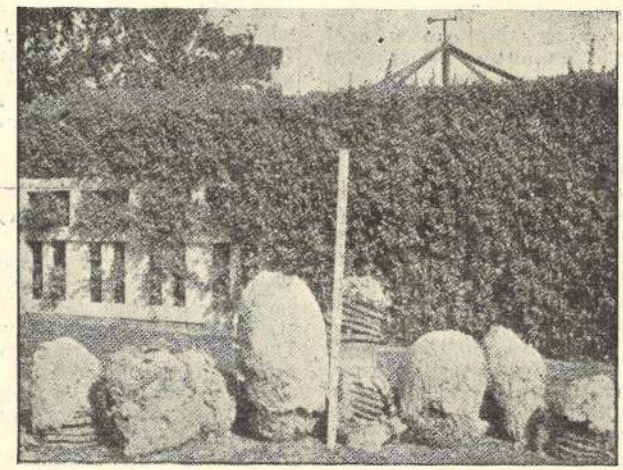
It is not generally known that there is a large number of varieties of wasps, including solitary and social varieties, all of which belong to the *Hymenoptera* order of insects. Certain social wasps build their nests in trees and bushes, others chiefly in the ground, but occasionally in sheltered places, such as the walls of a building.

At least two varieties of the social group have become established in New Zealand. The species *Vespa germanica* was reported to have increased greatly in the Waikato last season, when 149 nests were found and destroyed.

### Life History.

Young queen wasps of the common sorts *Vespa germanica* and *Vespa vulgaris* are raised in the autumn, and after mating they hibernate singly or in groups in some dark sheltered corner. With the exception of the newly-emerged young queens, all the community, including the old queen, die off in the autumn, and the old nest is abandoned.

In spring the young queen awakens and immediately hunts for some suitable place (usually a cavity in a dry earth bank) to begin building her nest. These wasps protect their many tiers of brood cells by building a bag of several layers of fragile paper, made from wood pulp prepared by their own jaws and placed securely in position. Only a few cells are built at first, and a single egg is laid in each. When these eggs hatch the resulting grubs are fed by the queen on a diet of masticated insects of all kinds, including flies and cater-



**Wasp nests which were dug out of the ground in the Hamilton district. The size may be judged by the three-foot rule in the centre of the picture.**

pillars) which she catches herself. As each grub grows, the queen builds up the cell walls, making them hexagonal in form, and also begins other cells round them in which more eggs are deposited.

About 28 days after the first eggs are laid worker wasps emerge from the cells. The new arrivals enlarge the nest, build additional new combs, and extend the paper walls sufficiently to develop second and subsequent batches of larvae. Worker wasps develop in rapid succession, and soon the queen has a large army of assistants and finds herself relieved of all her earlier duties except that of maternity. As the nest is enlarged the worker wasps excavate to provide adequate room. This work is done with their mandibles, and the bulk of the spoil is carried out and dumped well away from the entrance. All the new arrivals are workers (imperfect females) until late in the season or early autumn, when numbers of males and young queens are produced.

Throughout the spring and early summer they feed almost exclusively on other insects, but by January, when the nest has become well established, there are usually more workers than are necessary to maintain the normal economy of the nest. At this time, and until late in the autumn before workers, males, and the old queen die, these wasps may become a great nuisance to the housewife and to the orchardist, because of their fondness for sweets, including jam and fruit juices.

They are also reported to rob hives, but they could have very little effect on strong colonies, and they definitely do not store honey or other sweets in their nests, as no food is required for winter consumption. By May there is a decided slackening off in the activity of these wasps, when the young queens bred in the autumn leave the nest and fly away to hibernate during the winter. These young queen wasps appear to take cover in winter under empty sacks, in the folds of old clothing hanging in open sheds, or in dry corners underneath old logs lying about farm properties.

Unlike the honey bee, which dies once it loses its sting, the female wasp can sting repeatedly, and the pain is usually more severe than that from the sting of the honey bee. It is unfortunate that these insects have become established in New Zealand, and, though they are regarded as being more of a nuisance than a a major pest, it is desirable to eradicate them, if possible, while the infestation is more or less localised as at present. That can be done only by the vigilance and prompt action of the public in locating their nests and by suitable arrangements for their destruction.

The outside paper covering of the ordinary wasp nest is a light greyish colour. The nest, which was dug out of a sawdust bank near a timber mill at Frankton Junction last season, measured 15in. long and 10in. in diameter. These nests may be located by watching the regular flight of the wasps in any particular direction, especially near ground level or toward the entrance to a hole in the ground. The sides of an earth bank where conditions are likely to be fairly dry are favourable places in which they build their nests.

**Control Measures.**

Bearing in mind the life history of the wasp, it can be kept in control as follows:—

(1) By killing the queens whenever they are seen. They can be recognised by their larger size and by the fact that they are the earliest wasps on the wing. Any wasps found dormant under logs or in the folds of sacks or other material should be destroyed.
(2) By destroying the community, including all wasp combs and brood.

To assist in the eradication of these wasps the public is requested to report promptly to the Department of Agriculture, P.O. Box 373, Hamilton (telephone 3383 or 1952), the exact location of any wasp nests found in the neighbourhood, when arrangements will be made this season for their destruction as opportunity occurs.

**Tree Wasps.**

The comparatively small nests of tree wasps, an Australian species which is now fairly common in orchards in the Auckland and Wairarapa districts, do not come within this

category, as their nests can be more readily dealt with by orchardists and others by burning them out with a torch or blow-lamp, or by snipping off the twig to which they are attached and dropping the complete nest into a petrol tin half full of boiling water or water on which there is a heavy coating of kerosene. After dark on a cold night is the best time to carry out this work, and care should be taken not to disturb the wasps inside the nest unduly when taking down the nest.

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### LEAFLET ON POLLENATION.

As a result of several inquiries for the article on page 23 of the May, 1946, issue of "The N.Z. Beekeeper," the Editor has had a number of reprints made. These are in the form of a three-page leaflet at 10/- per 50. A limited number is left.
Apply to The Editor.

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## "THE N.Z. BEEKEEPER"

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Literary contributions and advertisements must be in the hands of the Editor, Mr. W. J. Lennon, Omakau, Central Otago, 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.

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