

THE

# N.Z. HONEYBEE

A JOURNAL DEVOTED TO THE INTERESTS OF BEEKEEPERS  
EDITOR-MANAGER P. A. HILLARY

ISSUED on 20th of  
Each Month:  
Subscription: 3/6, post free.

The Only Beekeeping Journal  
Published in New Zealand.

VOL. I., No. 9.

MARCH 20, 1938.

PRICE 4d.

## Honey Control Board

### Honey Control Board's Resignation

The three members of the Honey Control Board (Messrs. J. R. Butland, Chairman, P. A. Hillary and W. Watson), have tendered their resignations to the Government. The reasons for this action were explained in a circular issued by the Board, and, briefly were:

(a) That the Board was deprived of its powers.

(b) That the new scheme made no attempt to control grades or prices on the local market, or to deal with strong-flavoured and dark honeys.

(c) That the system offered grave risk of either over-supplying the British market, or alternatively (2) inducing competitive selling on the local market to the detriment of producers.

(d) That a fair and equitable system of pooling returns from both overseas and local markets had not been introduced, the proposed scheme being, in effect, the diversion of the overseas premiums to the Internal Marketing Department for use as a subsidy on competitive local sales at uneconomic prices.

In proof of reason (d), a report issued by the producers' representatives gave an analysis of the results of the local market sales of N.Z. Honey Ltd., which showed that for 1934 season, the Company's honey which was sold locally netted only 3.72d per lb., being .53d below the costs of production; for 1935 local sales netted 4.32d or .17d above costs of production; and for 1936 only netted 4.13d, making a loss below costs of production of .12d. (Costs of production: 3d per lb. liquid in the tank; plus tins, cases and transport to grade store; total 4d lb.).

The pay-outs were:

1933, Control Board 5d per lb., Company not yet operating.

1934, Board 6d, Company 5d, dif-

ference 1d. The Company marketed 234 tons locally and 168 tons were sent to the Board.

1935, Board 6d, Company 5d, difference 1d. The Company only marketed 105 tons locally, and sent four times as much (429 tons) to the Board.

1936, Board 6d, Company 5d, difference 1d. The Company marketed 213 tons locally, and only sent 212 tons to the Board. (The Company's pay-out may possibly be increased by a fraction of a farthing.)

The figures for 1937 were not available, but would be useless for comparative purposes, owing to the severe honey shortage creating abnormal, famine prices on the local market.

The Board regretted the necessity for its resignation, but felt that it had a duty to producers to place the full facts before them. The Board expressed appreciation of the many kind resolutions passed regarding the Board's work, and of the numerous appreciative letters from producers. The confidence shown in the Board by producers had made the duties of the members a pleasure.

### Meeting at Hamilton

The South Auckland Branch of the National Beekeepers' Association held a largely-attended meeting at Hamilton on April 8th, the President (Mr. T. Pearson), presiding.

The President stated that concern had been felt lest the services of the personnel of the recently-resigned Board would be lost to the industry. Their record of achievement spoke for itself. Their pay-out of 5d in 1933 had steadily risen to 7d per lb. pro rata in 1937, the overseas market had been developed to absorb 700 tons at premium prices, with specially-created outlets for dark and strong-flavoured honeys. He felt that

(Continued on next page)

every effort should be made to secure the harmonious co-operation of the personnel of the Board with the Internal Marketing Department.

"We will never again have a Board in which the producers will have such complete confidence," stated a producer.

"We have nothing but praise for the marketing achievements of the Board," remarked another speaker.

"The work accomplished by the old Board and the great amount of good which it had done for the industry were favourably commented upon by all present."—"N.Z. Herald."

A motion was carried unanimously thanking the Control Board for its services to the industry.

Mr. P. A. Hillary, who had explained the reasons for the resignation of the Board, was accorded a vote of thanks for his address.

In reply to a question, Mr. Hillary stated that the Control Board had for years advocated and supported local control and pooling of both overseas and local markets returns.

A speaker supported the control of local prices and grades as a necessity.

Mr. A. H. Honeyfield, representing the Internal Marketing Department, stated that his department had not committed itself to any policy until the Board had finally declined to re-

consider its resignation. The Department wanted the Board to continue, and urged it to do so to the last. The Department had only one aim, to work in the interests of producers.

The remarks of speakers were unanimously in support of the Government having placed the industry, more especially the local market, under the control of the Internal Marketing Department, and it was resolved. That the meeting pledge itself to give all the assistance it could to the new authority, so that it might make a success of the new marketing conditions.

### New Board to be Appointed

The President said that in the morning's paper appeared a statement by the Internal Marketing Department that a new Board was to be appointed, and that Mr. W. Nelson had been appointed a member with the office of Chairman. The other two members would be appointed later. He wished to congratulate Mr. Nelson on his appointment, and this was confirmed by a resolution.

Mr. E. A. Earp, Chief Apiary Instructor, spoke briefly, commenting upon events in the industry.

The meeting broke up with a spirit of good feeling prevailing.

### N.Z. Honey Ltd.

Some interesting figures from the balance sheets of the Company show: During the three seasons, 1934, 1935, 1936: (a) the local sales returns averaged 3,78d. per lb., and (b) the honey exported through the Control Board averaged 5,15d. per lb.

The average grade of the honey sold on the local market was higher than that exported by the Company—a most interesting fact. The total averages were: Local sales 84 per cent., exports 82 per cent. The yearly averages were:

	1934	1935	1936
Grade local sales	76%	85%	88%
Honey Ltd. Exports	81%	84%	82%

The seals levy was a levy of 4d. per lb. paid by shareholders upon all honey sold outside the company. The total amounts were: 1934 season, £1,839, 1935, £995, 1936, £1,148. These sums, when distributed to suppliers on their honey averaged per lb., .49d., .26d., and .26d. respectively.

The honey upon which seals levy was paid was: 1934, 197 tons; 1935,

167 tons; 1936, 123 tons. The total honey, therefore, produced by the shareholders of the Company was: 1934 season, 599 tons; 1935, 637 tons; 1936, 549 tons. The total Dominion production during those seasons would average between 2,500 and 3,000 tons.

The bonus paid out for long, even lines of honey during 1935 season, totalled £233/0/11.

### Avoid Auction Marts

A correspondent in the Wakato forwards a circular from a certain city firm of produce auctioneers, appealing for honey supplies, especially WHITE honey of SMOOTH texture. From 4d. to 6d. per lb. was quoted as obtainable. Our correspondent objected to the selling methods of auctioneers. In some cases the honey had been kept for long periods in a dirty condition, and producers at length were forced to take considerably less than the illusory prices so glibly quoted. He appealed to the Internal Marketing Division to supervise this form of selling, with fixed reserve prices, sanitary storage conditions, and true descriptions of honey.

## News of General Interest

### Treating Dark Honeys

"The Honey Control Board realised the importance of the problem of strong-flavoured and dark honeys when we first began operating overseas," stated Mr. P. A. Hillary, late member of the Board, at the Hamilton meeting on April 8. "I was asked by the Board to take all possible steps to solve the difficulty. I moved a motion at the 1934 Conference of Beekeepers with the object of appointing a small sub-committee to confer with the Cawthron Institute on the matter. I was chairman and secretary of the Committee. I visited Nelson. The Institute generously agreed to undertake research work. The Honey Control Board supplied free, all the honey necessary, of many different types, and contributed cash. Splendid work was done by the Institute. A final commercial test is to be made next month, the machinery having now arrived from abroad. I have placed my honey-house at the disposal of the Institute for the test. Mr. J. Rentoul, the other member of my committee, gave me expert assistance."

### New Apiary Registrations

New Apiary Registration Regulations were brought into force on November 1st, 1937. All previous registration certificates were revoked.

Every person keeping bees must **immediately** register all colonies of bees in his possession. New registrations must be made every **five years**.

Any person intending to establish an apiary, must **first** apply for registration before placing any bees on such place.

All owners of apiaries shall notify the Department of Agriculture of any **change in the number of colonies of bees in their apiaries**, the date of annual count being December 1st of each year, and latest date for notification being December 31st. Ceasing to use a place as an apiary must be notified. Change of ownership must be notified by **both parties**.

Every person who fails to perform these regulations, or makes any false statement, or fails to re-register any apiary he possesses by December 12th, 1937, shall be liable to a fine not exceeding £20.

### Harmony in the Industry

At the Hamilton meeting of beekeepers on March 8th, Mr. P. A. Hillary made an appeal for harmony in the industry and for the firm disapproval of the intrigue and distortion which had become rife during the past two years. Mr. A. H. Honeyfield spoke in supporting terms, and urged the beekeepers to help the Internal Marketing Department to "get on with the job."

### Flooded Rivers

The beekeeper was picking pears whilst waiting for the weather to clear. To him came a friend from the beach, "I think your bees must have been knocked about by the rain. I have been picking up bee-hives on the beach." "What?"

So that afternoon the beekeeper and a helper were tramping up the Te Ahi Settlement Road—it was impossible for cars. The worst flood for 40 years—7½ inches in 21 hours, the settlers said. Chains of fences down, flooded houses, and logs all over, confirmed their words.

At the apiary site, there was no jumble of overturned hives as expected. One solitary hive remained—of the rest there was no trace.

On a later date the whole course of the stream was searched to the sea. One four storey hive was found complete a few chains below the apiary. By odd combs, roofs and boxes the track of the rest could be traced over the next paddock, across two fences, and the road, over another paddock, and into the main river. From there, the six miles to the sea was dotted with hive bodies, combs and frames. As was to be expected, not many combs survived; but some with honey in actually reached the sea and were much enjoyed by children playing on the beach! The hive bodies were to be found in all manner of strange places, from deep holes under piles of fence-posts and logs, to the tops of willows 20 feet or more above the normal water level. The combs recovered that mostly contained brood, were placed over strong hives and, although it was over a week since the flood, and a large proportion of the brood was decaying, the bees were able to revive a few of the young grubs and some sealed brood hatched out!

### Manawatu Branch

A district field day, at which there were 60 persons present, was held by the Manawatu branch of the N.B.A. at Massey Agricultural College apiary on March 29.

Mr. F. J. Lewin, president, spoke on the work of the organisation in assisting apiarists. He pointed out how the Government was being assisted in the taking over of the marketing of honey by the organisation.

Professor G. S. Peren, principal of the college, extended a welcome to the visitors, who had come from as far away as Otaki and Marton. Professor Peren expressed his firm belief that the association held a very important place among New Zealand's industries. He would at all times render any assistance he possibly could.

The apilary instructor (Mr. H. F. Dodson) gave an address on the honey industry, and spoke on the necessity for beekeepers to comply with the notification of the appearance of disease and in obtaining permits for the removal of appliances from one apilary to another for the purpose of extracting honey. Mr. Dodson dealt with the treatment of disease and the desirability of beekeepers co-operating in the sale of their product. He pointed out the devastating effect of price cutting, and advised the beekeepers of all centres to adhere to standard prices and to consult with their neighbouring producers so as to avoid cutting.

An interesting and original address on soils and plants was given by Miss C. A. Barrett, of KIWITEA.

A demonstration on hive management was also given by Mr. Dodson. A hive was taken to pieces and the manner in which it was dealt with throughout the season was explained, together with the steps to be taken to put the apilary down for the winter.

Afternoon tea was served in the refectory, giving beekeepers the opportunity of discussing their experiences and problems.

The field day was followed by a meeting of the local branch of the association, when several new members were admitted.

The opportunity was taken of saying goodbye to the secretary (Mr. G. D. Yorke, of Foxton), who has received an appointment in the New Zealand Royal Air Force.

### Publications Reviewed

"Honey Production in the British Isles," by R. O. B. Manley, is a book that should be on the shelves of every commercial beekeeper. It covers the complete range of practical apilary work, and is full of valuable information upon all the matters that interest honey producers. This is one of the best books a beekeeper could purchase. It is well written by a successful commercial honey producer, who is thoroughly well informed upon the scientific aspects of the industry. We can recommend this excellent work. (8/- post free from R. O. B. Manley, Benson Oxford, England.)

The book by Rev. M. Yate Allen, M.A., upon "European Bee Plants," is a most interesting and unique work. To beekeepers who are interested in the scientific side of honey production, this work will be of the greatest value. An extract may prove interesting, which illustrates the methods of diagnosis of a sample of honey:

"The sample is of [soft, fine grain], not uncommon in New Zealand. The flavour has a decided twang of the gum tree, which speaks of the antipodes, though these trees are not peculiar to New Zealand, being much more common in Australia. The pollen [in the honey] is very plentiful, though some again are undoubtedly from plants which occur in Great Britain. Here is the list: (1) *Leptospermum* sp., one of the tea-trees, shrubs which grow in New Zealand and Australia; a very minute grain; (2) *Trifolium repens*, white clover; (3) *Hieracium* sp., hawkweed, often found in New Zealand honey; (4) *Cirsium* sp., one of the thistles; (5) *Mentha pulegium*, pennyroyal. The presence of so much white clover pollen, coupled with the presence of the *Leptospermum*, makes us almost certain of New Zealand as the country of origin; and when we add to this the presence of Pennyroyal, which is so abundant there, and the particular form of granulation, I do not think there can be any question about it." The book contains 300 illustrations. [New Zealand honey is never "creamed" in Great Britain. It is only softened sufficiently in 60lbs tins to permit it to be run smoothly into retail packages. The same practice is followed in New Zealand. Mr. Manley uses a somewhat similar process, see pages 246-248 in his book. "Honey Production in the British Isles."—Ed.]

## Adventures of a Queen

### Voyage of 2,250 Miles

A queen was recently sent to a beekeeper in Springton, South Australia, by the Clovergold Apiaries, of Auckland. After a long voyage of 2,250 miles by land and sea, the queen arrived in excellent condition, to meet with a series of extraordinary adventures which were described as follows by our South Australian friend.

According to the date of your advice note, it took seven days for the queen to come to Springton; the queen was small, but quite lively. There was not a single dead bee in the cage. One-third of the candy was used; the candy was excellent, just as good as if sent from New South Wales or Queensland. I had great excitement and tried to introduce with your cage, but when I went to look, the second day, there were four dead bees in the cage, because the bees of the colony wanted to kill the queen; so I took out the cage and tried a special cage of mine made to fit inside the hive to hold one frame of emerging brood. I only enclosed the queen and she was shut in with the brood by the screen. The bees had access to the queen, but could not get in. I left her this way for 3 days, then took the frame out, and hung it in the colony. I looked next day, the bees were balling the queen, so I caged her again for another three days, put the frame with the bees that had hatched from the

brood, and the queen in the colony. The queen had started laying now and they accepted her.

The greatest excitement was when I took the queen out of your cage, when she arrived from New Zealand. I took the cage in a room of course, in order to clip the queen's wing. The queen was excited and lively, but I managed to get her. Being so lively I did not clip quite enough. She struggled and flew against the fly-screen door. She fell down and I crawled outside under the verandah. She could fly fairly well, but, fortunately, I knocked her down twice and then got her. I clipped her wing some more. Nevertheless she is doing well now.

Years ago I had an Italian strain, 5-banded golden. At that time the district was in the best of heart, no trees cut down by saw-mills. At that time my best return per single colony was 690lbs. of honey; but now trees are cut down badly and the district is overstocked with bees. The returns are low. Four years ago the best return was 240lbs. from a Caucasian colony.

Caucasians are good bees for honey but bad swarmers. I will test your Italian against my Caucasian and Carniolan. I like Caucasians better than Carniolans.

I have been successful in introducing your queen after great excitement, and she is laying very satisfactorily now.

### Hawke's Bay Branch

A most instructive and interesting lecture on "Honey Blending," was delivered at Hastings, on March 17th, by Mr. L. Riesterer, Apiary Instructor.

Besides speaking on honey blending, Mr. Riesterer dealt thoroughly with the correct treatment of honey from the time it is extracted, until it is granulated. The beekeepers who attended, were well satisfied with the knowledge gained, especially in regard to the production of a fine-grained honey. After the lecture, Mr. Riesterer answered various questions.

A very good display of honey was made by the exhibits in the honey section of the Hawke's Bay Autumn Show, which was held at Tomoana, Hastings, on March 19th. This year there were a greater number of entries than at any previous H.B. Autumn Show, the excellent quality of the exhibits proving that Hawke's Bay produces some of the finest honey

in the Dominion. The H.B. Association display-stand again attracted favourable attention to honey.

### Our Serial Articles

Owing to pressure on our space, the serial articles, "How to Secure Smooth Grain," and "The Successful Production of Honey," have been held over until next issue. We have had letters from all over the Dominion expressing appreciation of the information contained in these articles. They will be continued regularly after this month.

### Leaflets for Distribution

"I was much interested in the information in your Journal re the constituents of honey—25 in all. I cut out the points in the articles and thought they would make an excellent little leaflet which I could get printed and distribute to the general public."

—P. L. H., Raglan.

## Honey Processing Equipment

By J. RENTOUL

### Development of Equipment

A most interesting address was given at the field day of the South Auckland Branch of the N.B.A. on March 2nd, by Mr. J. Rentoul, manager of N.Z. Honey Ltd., on the problems facing him in processing and packing honey for retail sale on the local market.

His perseverance and expert knowledge of honey resulted in his achieving remarkable success in developing equipment that gave N.Z. Honey Ltd., the most up-to-date and most efficient honey-processing and packing plant in the world. This plant has only recently been completed, and was perfected just prior to the purchase of the assets of N.Z. Honey Ltd. by the Internal Marketing Department (Honey Division). The plant should enable the Division to pack on a basis that will permit it to give a better article at a lower price than is possible to the private packer.

At the conclusion of his address, Mr. Rentoul was given an enthusiastic ovation for his success in perfecting new and original equipment for the processing and marketing of honey.

The address was as follows:

### The Early Methods

The handling and packing of honey in a set or granulated form in a commercial way was pioneered by New Zealand. The biggest packers of honey, when the late N.Z. Co-op. Honey Producers' Assn. started to market its honey in the United Kingdom, was the United States. This country uses honey in a liquid form. Canada was not then a factor in the honey business. In the United Kingdom the sale of honey at that time was scarcely a commercial proposition. A few small packers and a large variety of home-packed honey sold by individuals made up the business. The pack seemed to be either liquid or granulated, just as it happened. It is still largely so, but the commercial packers have grown a bit. Canada is now the biggest packer of honey in a granulated form.

The ideal result in packing set honey is to get a pack smooth in texture, and that will not set too hard in cold weather. The grain problem was the most difficult, as the firmness of the honey can easily be controlled by storage temperatures. Practical experience in handling granulated honey in this country led to certain

practices being followed, the scientific soundness of which was confirmed by Dr. Dyce, of Canada, in a thesis founded on scientific research and written sometime after the method of procedure had been established here. While we know that honey would granulate best at cool temperatures, Dr. Dyce states a temperature of only small variations from 57 deg. F.

When the Honey Producers' Assn. started to pack, the method used for melting was rather primitive. Tins were put on a rack in a closed chamber which was heated by oil lamps. Sometimes there would be a leaking tin and a cleaning up job. If the lamps smoked it was just too bad. One of the first things I remember in my connection with the Honey Producers' Assn. was inspecting hot water heating systems in wool drying stores and other places. I think Mr. Jordan was then the packing expert for the Honey Producers' Assn. The result of the investigation was the installation of vats through which ran hot water pipes. On these pipes rested the tins of honey with the lids off and the opening downwards. As the honey softened by contact with the hot pipes it ran on to the bottom of the vats which sloped towards the centre from where a pipe conveyed it to the tanks on the bottom floor. With a little judgment in the placing of the different varieties of honey in the vats the blending was automatic.

This method was satisfactory in some respects, but not in others. It was satisfactory in that the honey was not deteriorated by overheating, and that it produced a product that never set brick hard. It was faulty in that it could not alter the nature of the grain to any extent, and that it resulted in considerable amount of froth imprisoned in the honey which would gradually rise to the top, making the honey unsightly.

These vats were in use up till recently, but, instead of the honey being allowed to run down as it softened, in recent years it was kept in the vats till it melted right out. The increasing improvement in food-stuff packing made it imperative, if honey was to increase in popularity, to put our packs out with the honey in the most acceptable condition. It was quite evident that to get rid of grain and froth, the honey had to be melted and regranulated, and that the melting should be done in such a way that no deterioration should arise

from over-heating or prolonged heating. The deterioration of honey from overheating is viewed so seriously in Germany, where knowledge of these matters is on a very high level, that honey for consumption is not allowed to be sold if heated to over 122 deg. F.

### New Melters Invented

The melting vats we had were not designed for melting honey, but were used for that purpose. They were slow in action and were also awkward to fill, and an electrically heated chamber was added to the outfit, to get increased output. The same fault, however, applied to both, the heating was too prolonged, resulting in overheating the melted portion while waiting for complete melting of the solid cores of honey. Also the colour was more or less darkened.

A suggestion to let the honey when softened run on to sieves in a hot chamber and hold it there till it melted, proved quite impracticable. One of the difficulties was that the top of the great mass of honey held up by the sieves would melt and dry up to the candy stage.

I will not weary you with a description of the experiments that I found necessary in the development of a method that would do the job. Eventually having conceived the right method, I proceeded to build a model in wood of the interior of a melting chamber, that, when copied in metal, this model did not require one alteration.

The whole thing is not a spectacular affair. Outside it is like a large box with a switch board and some contraptions on the top. The inside view shows a rack built of plated angle iron with the shelves for holding tins and the accompanying trays running in a downward slope to both ends on a carefully calculated pitch. The principle of operation is that the honey runs from the tins through small holes in a more or less melted condition, and when it finally passes through sieves before running down to the tanks, any unmelted crystals are held back till melted. It will be seen, therefore, that the honey is melted at a minimum temperature and is a minimum of time in the heat. The chamber is electrically heated with a closed circuit, so that there is no loss through evaporation. It could be used successfully for drying moisture out of honey by slightly opening the doors.

Incidentally, there is quite a problem in a job like this in getting effective transference and diffusion of heat. This is a general and con-

ditioning difficulty. The inside measurement of the chamber is 7 feet high, 7 feet long, and 6 feet 6 inches wide and capacity is 108-60 pound tins. While most of the honey is down in twelve hours, sixteen hours are allowed for clear draining.

(To be continued)

### Honey Flow Daily Record

Mr. T. Barr, Brydone, Southland, writes on March 2nd: The following is the record of the scale hives from 1st to 6th February. Since that date the weather has been fine, but too dry. The bees managed to keep the scale balanced, putting in no surplus.

	No. 1	Hive	No. 2	Hive
	1	5lbs.	10lbs.	
February	1	3	6	
"	2	3	6	
"	3	3	6	
"	4	3	5	
"	5	3	4	
"	6	1	—	

### Many Orders from Advertisement

Enclosed, please find payment for one year's subscription to the "N.Z. Honeybee," also for my advertisement in January's issue. A large number of orders were received from all over the Dominion as a result of the advertisement.

For this locality, the season has been an exceptionally good one for queen rearing, but the honey flow was interrupted by a very dry period; then later, when the weather changed, several cold snaps were experienced, resulting in a crop much below that which was anticipated at the beginning of the season.

I am very pleased to hear that the "N.Z. Honeybee" is gaining ground. It must be most gratifying to you to know that the number of subscribers is steadily increasing. Wishing the journal every success. — C.T.G. Richmond, Nelson.

### Blenheim Honey

Our early honey is always about the same as the sample I sent you. It seems to be a bit of a mixture first, of willow and fruit bloom, then dandelion and wingthistle. The Vipers Buglions and mention is later; it comes on loss you mention is later, and in the lighter land on stubble, and in Marlborough is taken from white clover, lucerne and bugloss in certain parts. The latter seems to like dry, shingly country; if I ever get a pure sample of it, I will send you a bit.

**To Our Readers**

There are many of our readers who are desirous of becoming subscribers to the N.Z. Honeybee, but who have been too busy during the season to give attention to the matter. Perhaps time will be found, now that the pressure of work is easing up, to secure a postal note for the subscription and send it along. Many beekeepers throughout New Zealand have not yet seen a copy of this Journal, and next month we shall cease sending free copies to 1,000 of our readers and forward these copies to new readers who have not yet received the

**YOUTH WANTED** on Sheep Farms where bees are kept, who would be eager to share duties and profits of concern. Pay based on value of wool, lambs, grain, cream, and honey produced. Bradford Creek, Hororata, Cambridge.

**HONEY CONDITIONING**

For Sale.—Honey Stirring device, complete with electric motor and gearing. Will run all day without attention and enable you to produce a very high quality grainless honey without trouble.

**"CONDITIONER,"**

c/o This Office.

**Internal Marketing Division  
HONEY SECTION**

P.O. Box 1293 Stanley Street,  
Auckland, C.I.  
Phone 32-738  
10th Feb., 1938.

**GRADING DATES**

The following are the dates arranged by the Department of Agriculture for Grading.

Please arrange for your Honey to arrive at the Grade Store three days before the commencing date.

	Mar.	Apr.	May	Jne.	Jly.
Auckland	1-4	4-8	2-6	6-10	28-29
New Ply.	7-8	11-12	9-10	—	4-5
Well'ton	11-11	14-15	12-13	—	7-8
Lyt'ton	14-15	18-19	16-17	—	12-13
Grey'm'th	17-18	20-22	19-20	—	15-16
Smith'f'd	22-23	25-26	23-24	—	18-19
Dunedin	25-28	27-28	26-27	—	21-22
Bluff	30-31	29-30	30-31	—	25-26

**THE BEE KINGDOM LEAGUE**

has the pleasure of announcing that, in addition to the publication of the "Bee Kingdom" (Specimen Copy free on application) and its practical and scientific monographs, it has lately issued an important manual on

**EUROPEAN BEE PLANTS**

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**WANTED** to Buy. — Commercial Aplary, about 300 colonies.—Write "Western," c/o N.Z. Honeybee.

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**PRICE LIST****ITALIAN QUEEN BEES**

1937-38

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Untested	7/-	13/6	19/6	25/-	30/-	57/6
20 or over, 5s 6d each; 50 upwards, 5s 3d each.						
Select Untested—1/- extra per Queen.						
Tested	11/-	21/-	30/-	39/-	48/-	90/-
Select						
Tested	14/-	26/-				
Breeders	25/-					

Queens guaranteed free from all disease, and bred from pure stock which have been selected for hardiness, disease resisting, good working, and non-swarming qualities.

Ninety-five per cent. of untested guaranteed purely mated.

**DELIVERY.**—Tested, from 15th October; Untested, from 20th November (as weather permits) to 31st March. Orders in later filled if Queens available.

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HONEY TINS**

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