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The New Zealand Beekeepers' Journal.

JUNE 23rd, 1915.

ISSUED MONTHLY
FOR
THE NATIONAL BEE-KEEPERS'
ASSOCIATION OF N.Z.



PER ANNUM: **3/6** IN ADVANCE.



National Beekeepers' Association of New Zealand.

The object of the Association is the Improvement of the Beekeeping Industry and furthering the interests and the prosperity of the Beekeepers throughout the Dominion.

Membership is extended to any Beekeeper who is in accord with the aims and objects of the Association, on payment of a small fee.

DISTRICT ASSOCIATIONS AFFILIATED.

Waikato Beekeepers' Association. Hon. Sec., W. Hooper Teed, Waihou, Thames Valley.

Taranaki Beekeepers' Association. Hon. Sec., H. W. Warcup, Hawera.

Canterbury Beekeepers' Association. Hon. Sec., Miss Mackay, Middle Lincoln Road, Spreydon, Christchurch.

Pahiatua Beekeepers' Association. Hon. Sec., G. Bentley, Pahiatua.

Southland Beekeepers' Association. Hon. Sec., L. Gardiner, 119 Elles Road, Invercargill.

South Canterbury Beekeepers' Association. Hon. Sec., R. Lang, Geraldine.

OFFICE-BEARERS OF THE NATIONAL BEEKEEPERS' ASSOCIATION OF NEW ZEALAND.

President: Mr. J. S. Cotterell, Te Aroha.

Vice-President: Mr. J. Rentoul, Cheviot.

Executive: Messrs. A. C. Askew (Manakau), R. J. H. Nicholas (Hawera), W. F. Barker (Peel Forest), W. B. Bray (Banks Peninsula).

Secretary: Mr. R. W. Brickell, Dunedin.

A large membership will give the Executive increased funds with which to develop the local and foreign markets and push the export trade. Increased demand will raise the value of your honey crop.

June 23, 1915.]

The New Zealand Beekeepers' Journal

The Official Organ of the
National Beekeepers' Association of N.Z.

No. 12

DUNEDIN.

3/6 PER ANNUM.

N.Z. BEEKEEPERS' ANNUAL CONFERENCE.

The Annual Conference of the National Beekeepers' Association opened at Wellington on Wednesday morning, the 2nd June, in the Esperanto Hall. The President of the Association (Mr. Jas. Allen) occupied the chair, and there were present the Minister of Public Health (the Hon. R. Heaton Rhodes), who, in the absence of the Prime Minister, declared the Conference open, the Mayor of Wellington (Mr. J. P. Luke), Mr. T. W. Kirk (Director of Orchards and Apiaries Division), and Mr. H. G. Hill (of the Bristol and Dominions' Producers' Association).

The following delegates were present:—Messrs. Geo. Ward (Porirua), R. Stewart (Crookston), J. C. Hobbs (Hauwhaka), F. C. Barnes (Normanby), H. W. Gilling (Matapu), J. Ross (Foxton), Mrs. I. Palmer (Feilding), Miss Meek (Lower Hutt), Messrs. L. F. Robins (Temuka), W. E. Barker (Peel Forest), E. J. Pink (Ohau), J. Rentoul (Cheviot), E. G. Ward (Christchurch), W. H. Teed (Waihou), L. Bowman (Christchurch), C. J. Clayton (Peel Forest), H. W. Wareup (Hawera), C. A. Jacobsen (Little River), A. Ireland (Christchurch), Hugh McKay (Rockville), E. Simpson (Geraldine), C. A. Granger (Waihou), W. L. Bird (Manakau), A. Askeu (Manakau), R. J. H. Nicholes (Hawera), A. H. Davis (Hawera), J. W. Brown (Normanby), S. C. Rhodes (Riwaka), J. Crist (Dannevirke), J. C. Cooper (Menziess Bay), Allan Bates (Kaponga), W. Parrant (Lower Hutt), R. W. Brickell (Dunedin).

ADDRESS BY MR. RHODES.

Mr. Rhodes, in declaring the Conference open, said that Mr. Massey had asked him to express his good wishes to the Association, and to state that he (Mr. Massey) would give careful consideration to the recommendations of the Association. Continuing, Mr. Rhodes said that he was interested in the reports of Mr. Kirk, which showed that the industry was progressing in New Zealand. He learnt there were 11,200 beekeepers in New Zealand, representing 72,340 hives. The export industry was advancing, and the Government was pleased to give assistance through its graders. The well-being of the industry was largely due to the Honey Producers' Association, who had entered into an export contract for an amount up to 500 tons per annum.

With reference to the work of the Public Health Department, Mr. Rhodes said that samples of honey had been taken at grocers' shops by officers of the Department and submitted to the Dominion Analyst and other Government Analysts. The result went to show that the contention of expert beekeepers

was quite correct in asserting that 26 parts per centum of water as allowed by the regulations under the Sale of Food and Drugs Act was too high. The officers of his Department were considering the results of analyses with a view to seeing what figures should be placed in an amending regulation. It was proposed that the figures should be 20 parts per centum, and he would be glad if the Conference would express an opinion about that proposed alteration. As soon as a decision was arrived at he would have an amending regulation put through. He added that the original regulation was in conformity with that in force in several States of Australia, and approximated that of the United States. Nevertheless, he was convinced from the data placed before him that it would be very unwise to allow for such a large proportion of water as the regulations provided for. So far the analyses showed that there was practically no adulteration of honey in the Dominion, either by the addition of water or other foreign substance.—(Applause.)

Mr. Luke also addressed the meeting, and said that he would have liked to have extended a civic reception to the delegates. From the citizens he extended a hearty welcome to the members. He welcomed the work of the Association because it was another evidence of the varying nature of the industries of the Dominion.

Mr. H. G. Hill, of the Bristol and Dominions' Producers' Association, also spoke on matters relating to organisation and the marketing of honey, urging on the members present the necessity of a strong organisation, and instancing the great progress made by the dairy and the fruit industry since they had organised. He also emphasised the necessity of placing the very best men available with a commercial training at the head of their organisation and their Honey Company.

A hearty vote of thanks was accorded Mr. Hill for his stirring address.

Apologies and good wishes were received from F. K. Pope, Secretary of Agriculture, who stated that he would give every attention in his power to help forward the industry.

Mr. J. B. Cotterell (Vice-President) wrote: "To all my fellow-craftsmen attending the Conference I extend a hope that you may profit by meeting together, and in this connection I can say that in the past it has been both a help and inspiration to me to accomplish greater things in our chosen pursuit. Wishing every success to the Conference and a bumper crop of honey next season for all beekeepers."

Apologies were also received from Messrs. S. Hutchison, S. L. Luke, J. Irving, A. F. Elwell, R. H. Nelson and G. S. Tibble.

ANNUAL REPORT.

Your Executive have the honour to report that the year closing May 31st has proved one of the most important in the history of the beekeeping industry in New Zealand. Early in the year negotiations were opened up with Major Norton, the representative of the Bristol and Dominions Association, for the supply of large quantities of honey. Before the Major left the Dominion, your Executive were in possession of a firm

offer made on behalf of his Company by which a large export contract was provided for at very satisfactory prices. Having thus conserved the interests of its members by making sure of the contract, the National Association had then to find some means of having it filled.

Being an unregistered Society, lacking the necessary equipment, it could not undertake the carrying out of the contract itself, and so arrangements were made by which it was handed over to the New Zealand Co-operative Honey Producers' Association, Limited, who undertook to fulfil the terms of the contract, and have been successful in securing such supplies of honey as will amount to not less than one hundred tons per year for several years to come.

The value of this export contract to the industry, more particularly in years of plenty, cannot be over-estimated, not only for its direct and intrinsic value, but from the fact that it will go far to prevent the glutting of the local markets.

As directed by the last Conference, the Executive undertook the publication of "The New Zealand Beekeepers' Journal," which has been entirely successful. The inauguration of a new Journal is generally a more or less costly proceeding, and the small debit balance against your Journal is an evidence that the fateful first year's existence has been safely surmounted, and the enterprise placed upon a satisfactory basis.

In regard to membership, we have suffered a slight decrease, indirectly due to unfavourable climatic conditions. The widespread failure of the honey crop, due to drought in the north and middle portions of the North Island, and cold, wet weather in the South Island, tended to discourage some apiarists, and as a consequence the membership of the National has slightly decreased. On the other hand, the National had the pleasure of receiving into the affiliation the Canterbury Beekeepers' Association and the South Canterbury Beekeepers' Association. There remains now only three distinct Associations outside the ranks of the National—namely, Oamaru, Marlborough, and Poverty Bay. An effort will be made during the coming season to induce these Associations to throw in their lot with the National, thus achieving the consolidation of the beekeeping industry throughout the Dominion.

A striking instance of the value of the National Beekeepers' Association was shown some time ago, when the regulations controlling export were under consideration by the Government. It was not the intention of the Department that Timaru should be gazetted as a grading port, but upon the Executive of the National making strong representations to the proper authorities, the Department, on consideration of the same, agreed that Timaru should be included. The nett result of this effort to the South Canterbury beekeepers will be a saving of from 20/- to 35/- per ton in railway freights alone.

The financial position of the National Beekeepers' Association is distinctly satisfactory, considering that the year was commenced with a debit balance of £20, and that for twelve months a Bee Journal has been successfully published.

On behalf of the Executive,

R. W. BRICKELL,
General Secretary.

CONSIDERATION OF REMITS.

Mr. W. B. Bray was appointed Conference minute secretary.

It was resolved—"That all District Branches of the National be asked to make their financial year end on or about 31st May, for the sake of uniformity."

Resolved—"That the National Beekeepers' Association be registered under the Unclassified Societies' Act," and the Executive were instructed to carry the resolution into effect.

Consideration of notices of motion was proceeded with, and Mr. I. Hopkins moved: "That a clause be added to the Constitution for a Defence Fund for legal purposes to be established and kept separate from the general income of the Association, and that a levy of 1s. per member, a pro rata percentage, should be set aside according to membership of Associations."

After considerable discussion a committee was appointed to deal with the matter, and later the committee's recommendation, as follows, was adopted: "That the incoming Executive be recommended to seek information from the National Beekeepers' Association of America regarding their legal defence fund, and report a scheme to the next Conference, and in the meantime the Executive be empowered to take such steps as considered necessary in the event of any case arising."

Mr. Hooper Teed moved: "That provided satisfactory arrangements can be made with the New Zealand Co-operative Honey Producers' Association, Ltd., to subsidise the National Association, members' fees shall be reduced to a nominal sum of 2s. 6d. per annum, and that Clause 3 in the present constitution relating to financial members shall be amended to bring them in conformity therewith." Mr. Teed pointed out that his was a provisional motion, depending on acceptance by the Honey Producers' Association.

After discussion Mr. Teed agreed to withdraw his motion, with the idea of bringing it on at next Conference.

Mr. Jas. Allan (for the Southland Association) moved, and it was carried: "That this Association urge that the registration of apiaries be brought into force at the earliest possible moment."

Mr. Kirk said it was the intention to have that done. The war had upset things, but it was hoped that the regulations covering the matter would be gazetted in time for next year.

Mr. Allan also moved: "That a deputation wait on the General Manager of Railways and ask him to reconsider the question of railway freights on honey, pointing out that when the regulations were formed only small quantities were railed for comparatively short distances. Now tons are railed long distances to the grading stores for export, and the rate should be brought down more in conformity with the rate charged on other agricultural produce, more particularly butter."

The motion was carried, and Messrs. Jas. Allan, E. G. Ward, and L. F. Robins were appointed a deputation. They waited on Mr. Hiley, and reported: "That careful consideration would be given to the representations of the Conference."

A further motion from the Southland Association was put as follows: "That the Bluff be gazetted as a grading port for honey." This was carried after some discussion.

Mr. H. W. Gilling read a paper on

CO-OPERATIVE SELLING PROPOSITIONS.

Probably the biggest problem the commercial beekeeper, whose crop runs into tons, has to solve is the satisfactory disposal of his crop. He will probably be able to place it, put up in 56-lb. tins, either in the Dominion or on the English market at a price, but the price obtained is not satisfactory. This method of disposing of honey is also unsatisfactory for the simple reason that by selling in bulk we are putting into the hands of the grocer or merchant the power to build up a connection for retail packages of honey which must injure our craft. The grocer will not bottle it if he can buy it in bottles as cheap as he can put it up himself, and the fact that he buys in bulk in any quantity is proof sufficient that we must be selling too cheap.

But a beekeeper may be putting all his honey in retail packages, and in this he is wise, for he is at least building up a connection for himself and advertising his honey as his honey. But even then he does not find his path as smooth as could be desired. He has to compete with his fellow beekeeper, and, neither of them being wealthy, it generally results in a cutting of prices. He of course feels wrath because of this, and at the next meeting of his Association he gets on his feet and becomes quite dramatic. The meeting, of course, is with him, and it is perhaps resolved that the attention of the delinquent shall be drawn to the fact that the Association agreed that the prices for 2-lb. tins should be so and so, and for 2-lb. glass jars so and so. They find, however, that the poor unfortunate was quite aware of this, but unfortunately he was hard pressed for cash and had to realise. He will promise that as far as he is concerned it shall not occur again if he can help it, but his action has had a tendency to lower the price. This sale will be quoted, and more than likely if this man's needs do not force him to repeat the performance some other poor unfortunate will take a turn. They have no intention of being disloyal one to the other, but fate, hard fate, is against them. Can no remedy be devised? Must these unsatisfactory conditions continue? I think not.

It has been suggested that the difficulty could be overcome by the beekeepers agreeing to all sell through the one agency at a price mutually agreed upon. While I have had no experience of this class of business, I would not expect much from it. Some of the beekeepers sooner or later would be in need of cash, with the result that the agent would be instructed to sell as soon as possible at the best price obtainable. You may, however, form a Co-operative Company to dispose of your retail packages on a commission basis, and if the Company is strong enough it may make advances on the honey placed in its hands for disposal. That would be a step forward, but methinks it is not the solution we are looking for. Difficulties would soon manifest themselves. One man will run away with the idea that paper pots are the thing, and so he puts tons upon tons in paper pots, puts them into the Company's hands to sell on his account, and obtains an advance from the Com-

pany. The Company, however, finds them difficult to sell, and the next season comes around with the goods still unsold or sold at a sacrifice to clear. Or with more than one line of similar packages to dispose of, the Company would be vexed with the question "Whose honey shall we sell first? Jones' was put into our hands first, and for that reason should have the precedence, but Smith is short of money, and we must sell his honey or give him an advance. Jones is all right, but he rather fears the market is going to be glutted, and wants his honey sold before prices drop." I do not think a Co-operative Company selling its shareholders' retail packages would have a very happy existence.

I think the only solution of the problem will be found in a Co-operative Company which is prepared to handle the whole of the honey produced by its shareholders putting the honey up in retail packages at bottling depots established at different points for the purpose, and placing the honey on the market under the Company's label, the Company paying an advance on receipt of the honey in bulk or as soon after as practicable, and the balance at the end of the Company's financial year. This should work out better for the shareholder than the Company selling his retail packages on a commission basis, as the Company, buying in large quantities, could obtain them much cheaper than the individual beekeepers, and, knowing the market better, would not be so liable to glut the market with any particular kind of package. No question of preference in precedence in the disposal of honey would crop up. New Zealand is geographically very favourably situated for putting such a scheme to the test. It should not be difficult for the beekeepers of New Zealand to agree to put such a scheme to the test, for have we not already a very good start along these lines? We have now a bottling depot in Bristol, where our honey is being liquified and put upon the market under the label of our Co-operative Company, the N.Z. Co-operative Honey Producers' Association, Ltd.; so it now only remains for us to apply the same principle to the local market. I am disposed to think that some would fain utilise the Co-operative Company to dispose only of their surplus. This system of co-operative selling can hardly be expected to meet with success. A Company that handles only its shareholders' surplus would surely have a very uncertain existence. One year prices would be good on the local market on account of its being depleted by heavy exports. The tendency the following year would be for each and every beekeeper to keep back a larger proportion of his crop for the local market, resulting in a glut and low prices. No, my friends, cease to concern yourselves about the disposal of your honey; put it all in the hands of your Co-operative Company for disposal in whatever way they think best. It will then be possible by a judicious use of the Press and otherwise to greatly increase the consumption of honey in New Zealand, and also to obtain much better prices than are now obtainable.

Before the institution of the co-operative system the dairy farmers thought they were doing very well when only getting 7d. per lb. for butter, but now 1/- per lb. for butter-fat is not considered a big price.

It is the universal experience that a wise application of the co-operative principle secures good results, and there is no reason why it should not follow in our experience. I think the day is not far distant when the individual beekeeper will find it difficult to sell his honey satisfactorily. More than one firm of merchants have already avowed their intention to confine their business to our Co-operative Company quite unsolicited.

The paper brought on a most interesting discussion, and at the close a hearty vote of thanks was accorded Mr. Gilling for his interesting and instructive paper.

GRADING DEMONSTRATION.

A most interesting and instructive demonstration of grading for export was given by Mr. F. A. Jacobson, apiary instructor and grader for the Wellington and Taranaki Provinces. During the course of the demonstration, which was watched with the closest attention, Mr. Jacobson showed what each different item of the grade note was for, and why a given number of points was allotted for each.

At the close of the demonstration a general discussion took place, and a large number of questions were asked and answered to the apparent satisfaction of everyone.

The general conclusion was that, whilst the allotment of points and the methods of grading are not yet perfect, the Department is progressing on right lines. It was pointed out that, although grading has been optional, the standard of honey sent in to the grading depots this year is a vast improvement on that sent in when grading was first introduced. Beekeepers generally can congratulate themselves that they have in the Department an officer like Mr. T. W. Kirk, who, whilst jealous of the Department's grade stamp, is yet keenly alive to the individual necessities of growers.

EVENING SESSION.

An interesting and profitable evening was spent by the members of the Beekeepers' Conference in discussions on apiary management and appliances to use. The discussion on the question of what size hive to use brought out many interesting points, which mainly centred round the question of locality or district and the individual likes and dislikes of the operator. It seemed that most of the Taranaki producers preferred 12-frame hives on account of their larger capacity for winter storage. Questions of apiary management brought out many conflicting opinions, but everyone agreed that doing the right thing at the right time always ensured success. Mr. Allan (the President) gave a full description of the essential work required during the year to bring about the best results, which was highly appreciated, and endorsed by the old hands.

The following hints were given:—

It is better to pay five pounds' rent for a good out-apiary site than to get a bad one free of cost.

The success of a beekeeper is in the control of swarming. It cuts out unnecessary work. Don't work a hive every day. Give the bees a chance to do their work.

Feeding in the open air is sometimes quicker, but it is better to feed inside the hive, and use full combs of honey or syrup.

It is sometimes dangerous to use boiled honey.

Open-air feeding is good to keep bees going just before the honey flow. A syrup of one in four is the best.

Honey syrup excites the bees, and starts robbing much more quickly than a sugar syrup.

Just before a swarm is about to issue, take out a frame of brood, and the swarming tendency will be checked.

Don't give brood to a hive with an old queen; it is not worth while. Kill her, and give a young queen or a queen cell.

Don't feed boiled honey unless you are quite sure it is right. It must be of good quality, and avoid galvanised iron vessels and burning and ferment.

Rear queens from those hives which want to swarm early.

SECOND DAY.

On resuming, Mr. F. A. Jacobsen read the following paper on

HOW TO IMPROVE THE GENERAL QUALITY OF OUR PRODUCE.

The Dominion of New Zealand is a country particularly adapted to agriculture. Most of our produce is of a superior quality, and our first grades of honey compare favourably with the best produced in other countries. This paper briefly describes how to improve the general quality of almost the whole of our production by a method which gives very little extra trouble. Nature supplies the aroma and flavour which cannot be altered, but under the treatment recommended both seem to be improved. It is the grain, however, that disappears right out of sight, and the difference before and after treatment would probably mean the difference between the special and prime grade.

First of all we will take the cause of honey granulating with a sandy grain. It is this: Honey granulates upon standing because of the ability of its dextrose to assume a crystalline form much more readily than the levulose. The dextrose, then, frequently gathers together in small crystals before the levulose has time to form a similar condition. I deduct from this that if one could secure granulated levulose to mix with liquid honey the whole would form a solid much more rapidly and evenly.

Further, there are apparently two things which have an important bearing on crystallising—namely, atmospheric pressure and cold. A pressure of, say, 50 atmospheres would cause very rapid granulation, and a certain degree of cold would assist in this direction also.

Neither of these things are necessary for the purpose, however, and I have merely stated them to indicate outside influences.

Some of you are probably aware that on two occasions in the Journal of Agriculture I have recommended thoroughly stirring 10 lbs. of granulated honey into each half ton of liquid. The procedure is to mix the granulated honey with a quantity of the liquid until it becomes soft and pliable, then it will mix more readily with the larger quantity. If this is stirred for a quarter of an hour each day for three or four days it will then be in a liquid-granulated state, and should be tinned off before it sets too hard, which condition it will assume in a very few days. I have here with me a sample of honey treated in this way and a sample of the same honey untreated. I would like each one of you to examine these closely. The difference is clearly between a special and prime grade honey. The condition of the treated sample is excellent, and may be spread on bread without breaking it to pieces, which is another advantage.

If it is necessary to secure a finer grain in honey that has already granulated, it must be semi-liquified, and stirred in the same manner as mentioned for granulating the liquid.

If it is thoroughly re-liquified it will take a long time to crystallise a second time, and will then do so with a coarser grain than it originally had.

From improving the grain I will go on to eliminating the scum. In honey treated as I have described there is none: that is to say, the method of treating the grain answers a dual purpose, and gets rid of the scum also. I have come to the conclusion that it is absorbed in the rapidly thickening body of the honey. Recently I procured a quantity of what has up to the present been termed scum, and submitted it to Dr. McLaurin, the Government Analyst, for a report on its composition. It read as follows:—

Water	..	..	..	17.90
Dextrose	..	..	..	41.70
Levulose	..	..	..	38.50
Sucrose	..	..	..	1.10
Dextrin	..	..	..	0.16
Ash	..	..	..	0.14
Acid expressed as formic	..	..	..	0.05
Undetermined	..	..	..	0.45

100.00

On my own account I investigated by aid of the microscope the number of pollen grains per square inch contained in the scum, as it was reasonable to suppose it would hold a larger number than the honey by reason of it having risen to the surface. Such, however, was not the case, as I could find no evidence of a superior number than the honey below the scum contained.

This method of improving the quality is not only applicable to the honey producer, but applies in no less a sense to our Honey Company, who purchase from all sources in large and small quantities. I have no doubt that as our industry increases arrangements will be made to treat honey on these principles at the various depots throughout the Dominion.

GRADING OF HONEY.

Mr. A. Ireland read a paper of interest to honey-producers, entitled "Scum: What is it, and how can it be avoided?"

SCUM ON HONEY.

There has been a good deal of discussion on what constitutes scum on honey and how far the graders are justified in penalising honey for the white scum that sometimes appears upon the surface.

There are two sorts of scum. First, there is scum composed of very small particles of the cappings or wax, dust, or other foreign substances that may have found their way into the honey; second, a froth or small air bubbles of honey, both of which rise to the surface. The first-mentioned should be penalised, as it is the result of filling the tins from the tanks too soon after extracting. I reckon that three days is a short enough time to leave the honey standing in the tank before filling tins from it. The second kind of scum mentioned is composed of pure honey, and if heated will resolve itself into a clear liquid honey. This to a certain extent, like the first, is the result of filling the tins too soon from the tank. As to how far it should be penalised by the graders is a more difficult question, because when the purchaser at the other end liquifies the honey for bottling it will all disappear. When the two kinds of scum are together it should certainly be penalised, because when melted, although the froth may disappear, the first-mentioned scum will not, but remains a blemish on the honey.

During this last season I took a pint of scum off the top of my tank after it had stood three days, and slowly heated it. It was all reduced to liquid and pure honey with the exception of a very thin film left on the top, apparently composed of small particles of wax. Of course, I strain the honey through a fine strainer into the tank. Where no strainer is used, but the honey taken from the extractor directly into the tank, there would be a considerably larger film of wax particles, &c., than appeared in the above experiment.

While the subject of scum was under discussion at last Conference, someone mentioned that a solid block of honey taken from a tin of honey and cut would show streaks of scum in the body of it. Now I think that gentleman was under an error in supposing that the whiter in colour of certain parts of the block of honey was scum. I am of opinion that it is the result of a difference in the process of granulation of those parts. If they be examined they will appear to be drier—that is, they are less moist than the other and darker parts. A question arises here—and it is a difficult one for the grader to decide—that perhaps some of the white so-called scum may be this drier granulation and not scum at all, although penalised by the grader as such. Some liquids produce a scum when boiled, such as sugar, jam, etc. Such scum is composed of froth or air bubbles, and although in each case there may be no foreign substance in such scum, yet it is always condemned and removed. So in like manner should the scum from honey,

even although it be pure honey. I think that the National and other Beekeeping Associations, who give instructions as to how long a time to leave the honey in the tank before bottling or filling the tin from it, make the time too short. I have stated the shortest time as three days, but the longer it can be left the better. The tank ought always to have a close-fitting lid. Of course, there always is a very small quantity of pollen in honey, and some or perhaps most of it will be in the foam, as the grains are lighter than honey and would rise to the top with the foam.

At a former Conference I gave a paper on the ripening of honey outside of the hive, in which I advocated deep tanks in preference to shallow ones, because, as I said, the pressure in a deep tank would force all particles lighter than honey to the top by gravitation. The Editor of our Bee Journal questioned this in one of the Journals. One has only to study the law of gravitation to see that this is correct. All beekeepers have noticed that the ripest honey (consequently the heaviest) always sinks to the bottom of the tank, and the scraps (if any) always floats upon top. Now if gravitation acts in this way with honey, it will act in the same way with all other substances that are less in weight as in a liquid. Now, as foam of whatever sort is lighter than honey, it is forced to the top by the heavier honey being drawn to the bottom. And as the foam rising are greater according to the depth of the tank, so are the results greater. This seems a self-evident statement, and so I hope proves that deeper tanks are better than shallow ones.

Mr. W. E. Barker also read a paper entitled "What is Special, Fine, and Good Quality Honey?" dealing with the question of honey grading. He said that he thought they were all agreed that there was something wrong with the present method of grading, and some change would be necessary from the producers' point of view. He had headed his paper, "In the Future Grading of the Honey Department Advertiser." His own opinion, he said, was that grading as at present conducted was a detraction and a waste, and that the Department should confer itself solely to seeing that no bad honey was sent out of the country and should issue orders and stamps alone. He instanced cases where honey rejected here had been sent home, where it commanded the highest market price. He held that it was impossible to grade honey as better was graded. It seemed to him absurd to set a man to judge such a delicate commodity as honey when his whole system might be started by accident if he happened to be a smoker. It might be advisable to appoint lady honey graders, whose taste for sweet things was well known.—(Applaud.)

"A hint for you, Mr. Kirk," said a member.

Mr. Kirk. Find the money and we will approve them.

Mr. W. B. Gray read a paper on the same subject, with the idea of letting the Department know what improvement was desired by the beekeepers. The Department, he pointed out, welcomed criticism, and he held that the Government officials should grade not according to an individual desire, but according to the desire of the majority of the producers. The system at present had mainly originated from Department

officials, who had no reports from Home as to what was a first or second quality honey. They had also had no comments from Home on the grading. This year the standard of grading had been put up a notch, and when there were two grades below there were three now. He did not remember that the producers were ever notified about that.

(To be continued.)

HONEY CROP PROSPECTS.

The Director of the Orchards, Gardens and Apiaries Division has received from the apary instructors the following reports concerning the honey crop prospects:—

Auckland.—There is little further to report since last month. I have graded an additional seventy-seven cases of honey for export, and there are a few more lots coming in. The local market is somewhat bare, and prices have an upward tendency.—G. V. Westbrooke. June 28th, 1915.

Wellington.—I have nothing further to report since last month, except that several fresh consignments of honey have been graded and exported.—F. A. Jacobson. June 28th, 1915.

Christchurch.—There is very little to report, and the general conditions are about the same as last month. There are one or two enquiries for section honey; 3/6 to 3/- per dozen is offered for first-class by local merchants. The export trade up to the present has not been so large as last season, although a few nice lots are coming to market month by month, and are being shipped as expeditiously as it is possible under the disorganised state of shipping.—L. Newman. June 28th, 1915.

Dunedin.—The market is bare of supplies. Small lots have been quickly absorbed at advanced prices. All available last season's honey has been bought up. A few boxes of pot honey have come forward in excellent condition. Bulk honey, 4½/- to 3/- per lb.; sections (waxed), 7/6 per dozen.—E. S. Sharp. June 28th, 1915.

COMPLIMENTARY.

"I may state that I am delighted with the Journal, and have passed on the extra copies received to those who are becoming interested in bees."

"I think that the paper should be supported by every person keeping bees, and will do my best to get subscribers for it next year."

"I sincerely hope that the number of subscribers will increase, and that the price of the Journal will be raised. For my part I would be prepared to pay 10/- subscription, wishing the Journal every success."

"I am very pleased with the Journal, and manage to pick up a good deal of information."

These kindly remarks are much appreciated by the Editor.

The Grocery, Provision, Oil & Italian Warehouse Trades'
**TWENTY-SECOND INTERNATIONAL EXHIBITION AND
 MARKET,**

Royal Agricultural Hall, London, N., Sept. 18th to 24th, 1915.

COLONIAL HONEY COMPETITION. (Entrance Fee, 2/6.)

At the request of several colonial friends, it has been decided to include the following Classes for Honey and Wax amongst the competitions at this Exhibition. The objects are to introduce Colonial Honey to the British Isles, and the winning of a prize in either of these Classes by any competitor should enable him to sell the whole of his stock. The demand for Colonial Honey is annually increasing, and it is hoped that these competitions will give the industry considerable help.

Class 83—Twelve 1-lb. Jars of Extracted Granulated Honey.

1st Prize—Gold Medal and Diploma.

2nd Prize—Silver Medal and Diploma.

Third Prize—Bronze Medal and Diploma.

Class 84—Beeswax (in three 1-lb. cakes). Judged for quality of Wax only.

1st Prize—Silver Medal and Diploma.

2nd Prize—Bronze Medal and Diploma.

3rd Prize—Diploma.

Honey and Wax in the above two Classes to be addressed either to your High Commissioner, Agent-General, or Trade Commissioner in London, to reach him by September 11th, 1915.

Exhibits must be accompanied by a certificate from the Government Agricultural Department or the local Beekeepers' Association that half a ton of the Honey, or an equivalent of the Wax, a sample of which is sent to the Exhibition, was available for export.

These competitions are open to individual apiarists only, and not to Associations and Co-operative Stores.

The official number labels for exhibits in these Classes will be supplied to either the High Commissioner, Agent-General, or Trade Commissioner in London.

SUBSCRIPTIONS.

The following subscriptions have been received for the year ending June, 1915:—

Mr. J. H. Appleby, Miss H. Bernard, Brinkley Bros., Messrs. R. J. Bibby, F. J. Barwick, D. C. Bates, D. Campbell, W. Cattermole, F. J. Comte, R. F. Eagle, M. L. Feist, J. Gresham, H. N. Goodman, A. Gedge, R. C. Hart, S. Hutchinson, J. C. Hobbs, W. Heseltine, F. A. Jacobsen, W. Knight, A. C. Kimber, T. Le Comte, W. E. Lippiatt, A. M. Meyenberg, A. J. May, H. B. Miller, D. McLean, A. Mathews, Alex. McDonald, D. McRae, J. Notman, A. Olsen, K. Paton, Miss H. Papps, Mr. M. A. Pinny, Miss Poulter, Messrs. D. Pethig, G. E. Parker, H. W. Poynter, W. Reed, F. Simpson, P. Sullivan, C. Spackman, A. E. Spencer, F. Sherwood, G. S. Tibble, J. Vaughan, Mrs. J. Wood, Messrs. M. E. Wright, H. R. Wilson.

The Beekeepers' Exchange.

FOR SALE. | WANTED. | TO EXCHANGE.

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at the rate of 2/- per 36 words per insertion.

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Stating Price f.o.b. New Zealand port.

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We are the Largest Manufacturers in New Zealand of
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Send us particulars of your requirements, when we will
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LAMBTON QUAY,
WELLINGTON.

(By appointment Suppliers to His Excellency the Governor.)

We are Agents for this District for The ALLIANCE BOX
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All orders receive prompt attention.

Do you know that our name is synonymous with the best of
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Lambton Quay, Wellington.

Applications are invited from **BEEKEEPERS ONLY**
for **SHARES** in this important enterprise.

NEW ZEALAND CO-OPERATIVE HONEY PRODUCERS' ASSOCIATION, LIMITED.

CAPITAL - - £3,000

The Association is a Co-operative Organisation, established for the purpose of marketing the honey product of the Dominion solely in the interests of producers.

It has taken over from the National Beekeepers' Association an offer received by it from the Bristol and Dominions Producers' Association, Ltd., and has made a firm contract with the latter Association for the delivery of **not less than One Hundred Tons nor more than Five Hundred Tons per annum of High-grade Honey**, for a term of three years, on a fixed guarantee of a return of **4d. per lb.** The price is nett for Honey delivered f.o.b. at main ports, less packing expenses and 5 per cent. commission. The Producers' Association, while guaranteeing a return of **4d. per lb.**, also undertake to pay as much larger a sum as possible, the impression being that up to **5d. per lb.** will be forthcoming.

The experience of honey producers in the past throughout New Zealand, as far as export to Great Britain is concerned, is that the results have not been particularly satisfactory. The honey has been dumped on to the Home market, and handled in the rough-and-ready style generally accorded to overseas consignments. Under the contract above referred to, the Bristol Association receive the honey in bulk at their warehouse in Bristol, where provision will be made for its bottling and packing in such a way as will meet the requirements of the retail market in Great Britain. It will be sold bearing a uniform and attractive label, and with a continuous supply of a standard quality, it will doubtless command top prices. In this way the honey producers of New Zealand will receive the bulk of the profit instead of the middleman, as heretofore.

The New Zealand Co-operative Honey Producers' Association, Ltd., have now before them the task of raising this large quantity of honey, and invite the co-operation of the beekeepers throughout the Dominion in taking full advantage of the splendid terms which are now before them.

In order to deal with the proposition in a business-like way, the honey will only be received from members of the Association, every one of whom will be required to undertake the supply of a certain minimum quantity of honey per annum for three years. Shares will be allotted in accordance with the average quantity of honey to be supplied by each producer in the proportion of **one Share for every 4 hundredweight of Honey delivered.** The value of the Shares is £2 each. No deposit or other payment is required, as the deduction of **one-eighth of a penny per lb.** on the returns received from each shareholder's honey will be applied to the payment of the shares until such time as the shares are fully paid up, when no further deduction will be made, and honey may then be shipped by the producer in any quantity free of share deduction.

As it is anticipated that the shares will be fully applied for, it has been decided to give preference to applications from members of the National Beekeepers' Association. Those who are not yet members of this Organisation should become so without delay, and thus secure preference in their application for shares in the above Company.

An application form for shares will be posted on receipt of request by any of the following:—

Mr. H. W. GILLING, Chairman of Directors N.Z. Co-op. Honey Producers' Association, Ltd., Matapu, Taranaki.

Mr. F. C. BAINES, Secretary N.Z. Co-op. Honey Producers' Association, Ltd., Normanby, Taranaki.

Mr. R. W. BRICKELL, Secretary National Beekeepers' Association of N.Z., P.O. Box 572, Dunedin.

And the Secretaries of all the District Associations.



ITALIAN QUEENS

*From Root's Famous Long Tongued
Red Clover Strain.*

**THESE ARE THE BEES THAT FILL
THE SUPERS AND THE POCKETS.**

SAFE ARRIVAL GUARANTEED.



PRICES.
Cash
with order.

Untested	10/-	15/-
Tested	20/-	35/-

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CHRISTCHURCH.

W. A. DAWSON, FORTROSE.

PRICE LIST OF QUEENS.

Untested	1	2	3	5
Tested	5s.	9s.	13s.	20s.
Select Tested	10s.	18s.	25s.	42s.
	14s.	26s.		

COLONIES OF BEES (without Queens).

2 Frame (Nucleus Colony)	...	...	Each—10s.
3 " " "	...	...	12/6.
4 " " "	...	...	15s.
Full Colony on 10 Frames	...	...	£1 17s.

To the above prices must be added the price of the Queen required.

BEES Free from Disease, and bred from good stock. All care taken to ensure safe transit, but no responsibility taken with the colonies. I will, however, replace a dead queen, from the mail, if the box is returned intact.

TERMS—CASH WITH ORDER.

W. A. DAWSON, FORTROSE, SOUTHLAND.

THE "DAWSON ENTRANCE FEEDER."

The most Economical Feeder to use.

Saves TIME, LABOUR, & EXPENSE. Three great factors of importance to the Bee-keeper.

Some Facts about this Feeder.

- It can be adjusted for use in one minute.
- Is perfect working when in use, and costs little.
- Does not admit robber bees easily.
- Is not a hindrance to the honey-gatherers, and makes a little sugar go a long way.
- One hundred Colonies can be fed in as many minutes.

Try one on each hive. Feed a little each morning early with a syrup of "two of water to one of sugar," and see how the bees will forge ahead to the point of storing a surplus in most cases.

PRICE - 1/8 Each. Per Doz. - 18/-.

Mfctd. by Wm. A. Dawson, Fortrose.

Selling Agents, Alliance Box Co., Ltd., Dunedin.

N.B.—Fill twice a week and keep your Colonies in good order.

The Feeder can be attached to any hive.

ROBERT STEWART'S PRICE LIST.

PURE ITALIAN QUEENS, GOLDEN & THREE-BANDED.

Untested	1	2	3	4	5
Select Untested—1/- extra per Queen.	5/-	9/6	14/-	18/-	22/-
Tested	10/-	18/-	25/-	33/-	40/-
Select Tested	12/6	22/6			
Breeders	20/-				

Queens supplied at above prices from a new strain procured from the A. I. Root Company, and tested during last season, at customer's option.

TERMS: Nett cash with order. Cheques to have exchange added.

All Queens guaranteed free from Foul Brood, Bee Paralysis, and all other diseases. Bred from pure stock, which have been selected for hardiness, disease resisting, good working, and non-swarming qualities.

P.O. Order Office, Tapanui.

Address: R. STEWART, Crookston, Otago.

To get the Best returns from your Honey you must use Up-to-date Equipment!

IN BEE-KEEPING, as in everything else, the man who utilises labour-saving appliances is the man who makes most money. Pottering away with old-fashioned plant is the most extravagant practice of which any Apiarist can be guilty. Let us equip you with the modern type of plant, and you will find that results will more than justify the expenditure.

Automatic Extractors Worked by Motors.

We would like to send you a FREE Pamphlet on Power Honey Extractors !!

It tells you about the wonderful machines which the large Apiarists are now using. The plant consists of a 4, 6, or 8 Comb Extractor with a Honey Pump geared to the side, and the whole outfit driven by a 1 or 1½ Horse Power Motor. It saves—Time, Labour and Wages, and gives an increase in the amount of Honey extracted.

We also stock the Latest Extractors for working by hand.

The "Baines" Capping Melter.

This ingenious appliance removes all difficulties in dealing with Un-cappings.

It is Automatic in action and produces a High-grade Wax immediately the extracting is finished. Will deal with combs in any condition while the Honey is not injuriously affected in the slightest degree.

Price Complete—50/-

Steam-Heated Uncapping Knife.

LEA'S New Patent Steam-Heated Knife is a tremendous boon to Bee-keepers.

The Knife has a hollow blade through which the steam passes all the time, keeping it always piping hot and ready for use.

A PRACTICAL DEVICE, INVENTED BY A PRACTICAL MAN FOR PRACTICAL BEE-KEEPERS.

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