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The New Zealand Beekeepers' Journal.

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

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

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How does that average strike you? That was the actual result obtained in this district last season. The season was nothing exceptional, but the Bees that produced that splendid result were not too slow: they were what we call hustlers; no "Beg pardon" about them.

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The New Zealand Beekeepers' Journal

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

No. 23 DUNEDIN. 3/6 Per Annum.

STRAY BEES.

By R. B.

Basswood or linden planting has been taking up some space lately, and some of the writers seem to be waxing warm on the subject, and it is quite evident they are writing and thinking about different species of this tree. Botanists have recognised over a dozen species, and of these three are natives of America, about six natives of Europe, and three Asiatic species. Apart from the species, there is the different characteristics the same varieties will develop in different localities and climates. It is evident that the basswood of Taranaki described by "H. B." and that of Christchurch and Fairlie described by "Apis Dorsata." are of widely different species. American writers, who have had over forty years' experience planting their basswood trees, say that they yield a few blossoms when five years old, begin to give some nectar at ten years, and give heavy periodic yields at twenty-five years. As a timber tree they supply good soft wood, suitable for furniture, either for inside of hive or house, but of little use where exposed to the weather.

The basswood is famous as an avenue tree, and is largely planted as a shade tree in European countries. The European basswood is being largely planted in Northern America, because it blooms earlier than the American varieties. It is said to be difficult to raise trees from seed, and young plants found under the old trees succeed best when transplanted. It would be interesting, however, to know where seed or plants of the Canterbury variety can be obtained, so that we could try some as an experiment. It is the duty of every man on the land to leave to posterity something useful and beautiful, if only to show that he tried to leave the world better than he found it, and no better landmark could he leave than a plantation of ornamental timber trees.

If it was necessary to raise trees which would provide durable timber as well as honey, the most useful tree to plant would be yellow box (Eucalyptus melliodora). An Australian writer says that when an apiary is situated within reach of these trees, it is nothing remarkable to obtain 350 lbs. honey per colony, the honey being pale in colour, dense, and of delicious flavour. The timber is heavy and hard, makes good firewood, telephone poles, and railway sleepers. The red box (Eucalyptus polyanthemos) produces a pale, dense honey of fine flavour, and its timber is much sought fter for railway sleepers, bridge beams, and fencing posts. White stringy bark (Eucalyptus eugenioides) is even a better timber tree than the above, but produces honey difficult to extract, but of a rich, full flavour.

All these trees will grow on poor, sandy or shingly land, and the stringy barks have been growing in New Zealand for the last thirty years, with the very best results in regard to the timber cut from them and tested for durability.

* * * * *

Last year there was much said about the appointment of local apiary inspectors. Does anybody know what happened?

* * * * *

The revolutions per minute which the reel of a honey extractor should make is very seldom mentioned in bee journals, so we decided to experiment, and found that 300 r.p.m. was right for old combs, and about 200 for new combs. Generally the reel is run as fast as the combs will stand without breaking.

* * * * *

It is well worth knowing the power generated by one Imperial gallon of benzine when used in a good 2½ B.H.P. engine. It will do any one of the following:—Extract three tons of honey; cut eight cords firewood into stove lengths; milk 300 cows; generate electricity enough to illuminate a large house for 30 hours. The writer has repeatedly proved the two first statements. The engine actually costs, for fuel and oil, 10d. a ton for extracting honey, and the comfort of having power ready to plod away all day (without continually turning to look at the clock like a man or running away after fish in the creek like a boy) is worth quite twenty times the cost. Then look how it solves the firewood problem! How many swing that old wood axe every working morning of the year for ten minutes or so. Only ten minutes! but just figure it out, and your wood has cost over 75/- to cut for the year. The engine will cut the year's wood in one short day at a total cost (for labour and fuel) of 15/-. Our engine not only extracts honey and cuts wood, but also grinds grain for the stock, and runs a circular saw in the workshop. There are also numerous other things it is eager and willing to do for us when we get the fittings for it.

* * * * *

With regard to the proposal to send honey to the troops at the front, it is interesting to read what a German writer in an American bee journal has to say. He claims that they have just had the best crop for ten years, and large quantities are being given to their soldiers, not only in the hospitals, but also to those in the field and trenches. Further on he says: "These poor men (friend and foe) in the trenches get hot meals very irregularly, and honey is very much appreciated by them."

A belated swarm is reported by Mr. J. McLeod, "Buckeye," Outram, on April 14th. Mr. McLeod was attracted by a disturbance among his bees, and on examination found that the disturbance was due to the fact that an unusually large swarm hd settled on a near-by tree. The very mild autumn weather experienced in the south in the month of April may have had something to do with the lateness of the swarm.

"Use bisulphide of carbon for destroying insect life or moths in the apiary house and empty hives." That statement has appeared scores of times in bee journals and books, but the writers never say how much is to be used, whether it is a spoonful or a bucketful. Nor do they say whether it is to be bought by the pint or gallon, whether it has to have a tin or glass container, whether it is poured on hot embers, or evaporates of its own accord. Now you fellows who have had practical experience, tell us more about it, please!

OUR EXPORT TRADE.

WHAT OTHERS THINK.

It may be as well just now to say something about the development and future prospects of our honey export trade for the information of those of my readers who are just entering the ranks of beekeepers with the view of becoming commercial honey producers. I may state at once that never before since the beekeeping industry was first established in New Zealand has there been such encouraging prospects before careful and intelligent beekeepers as is the case at present. This pleasing outlook has not been gained without much thought and hard work on the part of those who have taken the lead and fought for reforms that have brought about the betterment of the industry in the interests of themselves and those who follow after them.

We are now producing more honey in New Zealand than the requirements in our local markets; consequently if we had no profitable outlet for our surplus the prices locally would fall below a profitable margin, and commercial beekeeping would be in a bad way. Thanks, however, to the enterprising spirit of some of our leading beekeepers, who formed a Commercial Honey Producers' Association for the purpose of developing both our home and export honey trade on profitable lines, an advantageous export trade has been established, which has already had a big influence on local prices to the benefit of producers.

Previous to the advent of the New Zealand Honey Producers' Association, the export trade was in a very bad way; between local agents' and shippers' charges, freight, brokers, and landing charges and auctioneers' charges in England, the producer was lucky if, after waiting six or eight months, he netted 3d. per pound for his honey; sometimes he found himself in debt. The above Association is now establishing depots in all the principal beekeeping centres to deal as well with local requirements, so that, as I have already remarked, the prospects before commercial beekeepers are most encouraging.—Auckland Weekly News, 30th March, 1916.

We specially draw the attention of beekeepers and others to the appeal published in another part of this issue by Mr. T. W. Kirk for honey for the troops at the front. Those willing to contribute either in goods or cash should communicate with the Secretary of the National or of the H.P.A.

THE GROWTH IN HONEY.

By I. HOPKINS.

Seeing that I was the first to call attention to this matter and that I have given particular attention to it during the past seven years or so, my experience, perhaps, may throw some little light on the question of whether such growth leads to fermentation or not in honey where it takes place. Although I have seen the white substance frequently before, it was in the samples I collected from all parts of the country for the Franco-British Exhibition and for show purposes in New Zealand early in 1908 that I first particularly noticed its growth. This growth was very rapid in all the finest samples, and in the choicest that I sent to London it had advanced considerably before being packed. As I knew the samples were well ripened, the growth did not give me any concern.

I kept track of these samples for about three years, during which time they were exhibited at the Franco-British (where they received the Grand Prize), Japan-British, Growers', and other Exhibitions, receiving prizes at each, and the praise of one of the leading British beekeepers as being equal to the best honey ever he had seen. Now, judging by what occurred in the samples (part of the same lot) I retained for New Zealand shows, the growth must have reached around the glass jars in less than twelve months; yet during the three years theer was never a word of fermentation, nor was there concerning our exhibit in this country.

Again, in my endeavour to find out the reason of this growth, I sent two samples of honey containing it to Dr. E. F. Phillips, U.S.A. (one was over twelve months old, and the other a few months), explaining the matter fully, and asking him to assist me. He passed the samples and my letter to the Bureau of Chemistry, with his request, but owing to an oversight nothing was done with the samples until about eighteen months after, when I received an analytical report of both samples, but not a word on the cause of the growth. They were both declared to be very fine samples of honey, so that there could not have been any signs of fermentation.

At the Ruakura Apiary, as I have previously stated, there are over sixty samples, saved each season since 1907, most of them showing the growth more or less without fermentation; so in the face of these experiences I must side with "Critic," and say the growth does not of itself cause fermentation. I shall still hold to the opinion expressed before that the growth indicates a change in the sugars apart from any ferment until chemically proved to be otherwise.

THE FARMER, BEES AND CLOVER.

By W. E. BARKER.

(Continued from last issue.)

There is no more fascinating study than that of cytology and the mitosis of cell structure, or one that is bound to bulk so large in the discoveries of the future, for these minute organisms seem to have the power within certain limits of breaking up other organisms and so altering life's figures in this dance of life.

Have you ever thought how wonderful it is, and why, that on one tree you may raise an Irish peach, a Rilestone pippin, and a French crab? The same sap feeds the three, yet how great the difference. It is to the plastids of the cell sap we owe this difference, to their individual chemo-taxial action the miracle by which each fruit ripens in succession. And it is to the bees we thus owe the occasional occurrence of new species or varieties, caused by the blending within certain limits, only just becoming fully known, but which can be mathematically defined. (I refer to the chromo-somes of the cell structure, which, however, is of too technical a nature to enter more fully upon in this paper.) Of these plastid chromosomes from one branch or tree to another via the ovary and the ovum. And it is more than probable that it is to the intervention of bees and other nectar-seeking insects that we owe the many varied hues of our flowers enzymes, to which it is now known the hues are due. In paleo-botanical times the evidence goes to show that plants were more uniform and simple in their colouring, and the more ancient families still retain their greens or whites.

Herbert Spencer has said, "As the eagle cannot out-soar the atmosphere in which he floats, and by which alone he may be supported, so the mind cannot transcend that sphere of limitation within and through which exculsively the possibility of thought is realised." Yet man is always trying too, and in trying learns to soar higher and higher the more tenuous the air becomes. One of the difficulties he has tried to overcome is to account for the reason of the sap flowing upwards. The only instance in which water is known to run uphill; this is of such daily occurrence that many of us have ceased to wonder, yet is there anything more marvellous in nature—a more difficult problem—as to how this water rises sometimes several hundred feet. I think the most generally accepted theory is that as it is known that columns of water of very small diameter can resist tensible strain, so owing to the transpiration of water from the leaves a stimulus is created, and the minute cell structures act as pumps and draw it up by osmosis from cell to cell as required. Be this the right explanation or not for this phenomenon, the same law accounts for the fact that on the bees removing nectar the nectaries will be refilled. Some scientists say bees are but "reflex machines," and much ink has been spilt on this subject; sometimes when I see the idiotic things that bees do I am inclined to agree, and in this case had they half the intelligence of the average

working man one would expect them to present a "little bill" to the foolish farmer for "services rendered," yet they go on working uncomplainingly except for an occasional sting when the said farmer intruded between their business, and then the farmer makes as much fuss as if he was "kilt entirely." No; bees are not useless appendants formed for the amusement of lazy men, but are indivisable units in this great scheme of life, and I would strongly advise all farmers and fruit-growers to give every inducement and encouragement to apiarists to settle in their neighbourhood if they have no bees; it is to their advantage.

Honey Crop Prospects.

The Director of the Horticulture Division has received from the Apiary Instructors the following reports concerning honey crop prospects:—

Auckland.—Prices remain unchanged. Much of the honey arriving at grading store is in a liquid state, several cases having leaked during transit. Producers should not despatch it for export until granulated, as it will not be graded while liquid, and storage will be charged.—Geo. V. Westbrooke. 1/5/16.

Wellington.—Honey is in strong demand, prices showing considerable advance over former years. Considerable consignments, carefully packed and of very fair quality, have been graded for export.—F. A. Jacobsen. 4/5/16.

Christchurch.—Little honey is offering in Canterbury, but in Marlborough there are prospects of a surplus for export.—L. Bowman. 2/5/16.

Dunedin.—Supplies are scarce, prices being maintained. No surplus for export is anticipated. E. A. Earp. 2/5/16.

The South Canterbury Red Cross Society purchased about forty cases of 2-lb. tins of honey recently for shipment to the Base Hospitals in Egypt. What a pity it is that the crop was so small this year with all the extra avenues for consumption which have opened up. Those beekeepers who have remained outside the co-operative movement this year are reaping a rich reward of the labours of their fellow beekeepers. But wait! When the production of honey is up hundreds of tons, as it will be next year, then they will not be in as good a position as those who have thrown in their lot with the co-operative movement, and may not be allowed to take advantage of the export scheme.

A beekeeper in Central Otago secured a most excellent return this season from a few colonies of bees. His crop for sale was just four tons, and for this he received a cheque for £199. The tin and packages were supplied by the purchaser. This is one of the best net returns we have ever heard of.

The annual meeting of the Poverty Bay Beekeepers' Association was held on Saturday, 25th March, there being a good attendance of members. Mr. Geo. Stevenson (President) and Mr. J. B. Adams (secretary) were re-elected to their respective positions. The annual balance sheet was laid before the meeting. The President congratulated the members on the substantial balance standing to the credit of the Association. It was decided to make an effort to get all beekeepers in the district who are not yet members to join the Association, and have a thorough co-operation in the sale of honey. It was also proposed to approach the Director of Agriculture in regard to the immediate appointment of one or more local inspectors.

An interesting exhibit at Ruakura was a stand of bottled honey, indicating the results of experiments with the hydrometer, which was first introduced for testing the moisture in honey by Mr. I. Hopkins. New Zealand was the first country to adopt the hydrometer test, and by it a definite specific gravity has been fixed at which honey will keep. This is of incalculable benefit to the industry, as apiarists are thereby able to ascertain exactly when the honey is ripe and ready for extracting. The standard fixed, after exhaustive experiments, is 1.20 specific gravity, which is recorded when the water content is 17.40 per cent. This specific gravity has now been accepted by the New Zealand Honey Producers' Association as the standard for marketing, and the exhibit at Ruakura is probably the most unique in the world.

At the Waikato field day, Mr. Pope said he was quite convinced that the honey industry was destined to occupy a very prominent place in the Dominion. When the people of New Zealand acquired the honey-eating habit, as they certainly should, he thought the industry would receive a tremendous impetus, and he felt confident in advising experts to go on increasing their hives. The export prospects were bright, and while the price of butter remained high the price of honey was likely to keep up also. A deputation had waited on him from the Waikato Association that morning, and as a result of their counsel he thought they would find that in the near future work of a more strictly experimental and instructional character would be undertaken at the Ruakura Apiary. He was sure the Minister of Agriculture was equally interested in the matter, and while the bigger improvements would have to wait until the money could be spared, it was probable that many smaller but nevertheless important matters would be attended to at once.

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A talk on "Queen-rearing and Nuclei-making," from a commercial honey grower's standpoint, by Mr. Sinton Hutchinson, one of the largest, if not the very largest, producers in New Zealand will be worth a good deal to hear at the Conference. There will be no charge for admission!

BEEKEEPING FOR WOMEN.

By Mrs. HELEN MATHIE.

In these days when everywhere women are asking the question, "What can I do to earn money at home?" I wonder that more of them do not turn their attention to beekeeping. The greater part of the work is easily within their strength, and requires attention only for a part of the year. The initial investment need not be large, and the upkeep is not heavy. Once established, the hives and working tools will last indefinitely if properly cared for. Even if the bees die out, the outfit is left, and an outlay of a few dollars will start another apiary, presumably with better stock than the bees that died. In a good year the profits for time expended are larger than on almost any work a woman can do.

I say I wonder why, but really I believe I know why after all. Almost all women fear them. Of the apiaries within a radius of several towns ,only one is owned by a woman other than myself. However, she does not fear them, and when at home works among them. I reason that women fear them because although "crazy about bees' for years before I had any, I could not muster courage to start with them, not knowing anything about them, because I felt sure they would sting me if I went near them. If Providence had not sent a swarm to alight almost on my doorstep, I doubt if I should know any more about bees to-day than I did twenty years ago. That it was a mistaken fear I very soon learned, and it would take some pretty hard knocks of adverse fate to drive me out of the bee business now.

At the time my first swarm adopted me, my sole actual knowledge of them was the seeing of about a peck basketful of them winged into a hive by a neighbour arrayed in veil and gloves, while the remainder of his family hovered at a safe distance, as did I. I had heard a great ringing of bells, beating of pans, shouting, and had seen much running to and fro, but I arrived after the excitement was mostly over. The bees, deposited on a white draped table, were marching decorously into their new home, urged by a man armed with a hen's wing. I had never seen the inside of a hive, and my reading had been confined to newspaper articles unillustrated, so that my knowledge of bees was very slight. However, I was fascinated and eager to learn, but I kept at a safe distance from any hives with bees in them.

When the swarm came to me it was the men folks who were shy, and I had no notion to let them leave me because I had not grit enough to capture them. I sallied forth arrayed in my husband's rain coat and gloves, with my head tied up in the biggest hat veil I had. I seized a box, a table-cloth and a wing, and, adopting as nearly as I was able my neighbour's tactics, I soon had them in a box. The veil was not all that could be desired, and I received stings through it where it was drawn close to my chin, but I was too much engaged to mind about that.

I longed inexpressibly to overhaul the inside of the hive all that summer, but had not the courage, and about Thanksgiving time I had them carried into the cellar, where they wintered, with the loss of but a small handful of dead bees on the bottom-board. My experience since then has been varied—some good, some bad, but all highly educational. Like most novices, I wanted to try everything I heard of, and some of these trials were not all that could be desired; and I feel sure of one thing, and that is that the honey bee is not subject to any set of ironclad rules, and very frequently overturns the best laid plans and most plausible theories. I am more and more confirmed in this opinion by reading the experience of others as given in the bee journals. The bees frequently upset all calculations. As long as they follow nature's way unchecked, it is quite easy to guess what they will do, but when trying to manipulate them to ways of human planning there is frequently another guess coming.

I have not lost my interest in them with familiarity. Indeed, the more I learn about them the more interested I become. I have raised chickens, ducks and geese, taught school, taken boarders, canvassed, raised small fruit, done sewing and fancy work, and I have never found any of these occupations so interesting as beekeeping. There has been but little of the work in which I needed help. The hives are carried in and out of the cellar for me, and if a swarm gets too high some one has to help me to get them; but in three years this has happened only once.

To the woman of frail physique I know nothing more healthful, interesting, profitable, and within her power. There are really not more than six weeks or two months of the year when they require much time or labour. By planning to prevent swarming and having a man to carry them in and out of the cellar or pack them for winter, there is little work requiring much strength.

I heartily recommend beekeeping to women wishing to earn money at home in a pleasant, easy manner. I notice in picture groups of beekeepers white-haired ladies. My own hair is white. Age is no obstacle. Years ago I knew an old lady who had a small apiary. She was small and white-haired and soft-voiced. To hear her crooning to her bees, and to see her handling them without harm was a pretty sight, but her grandson could not come within sight of the hives without being chased. Quite evidently they knew their friends from their enemies. No doubt our progressive young women, if they desire, can make a much greater success on a larger scale than we older folk, and we will be glad to have them do so.

Glover, Vt.

Appliance Exhibit.—A new feature of the Beekeepers' Conference will be a display of beekeeping appliances. If any reader has any appliance which he finds useful in his work, the Executive of the National Beekeepers' Association will be glad if he will send it along for exhibition. If unable to attend, the package may be addressed, Beekeepers' Conference, Esperanto Hall, Lambton Quay, Wellington, and a note of advice to the Secretary; also instructions for return of exhibit.

Notices.

The Annual General Meeting of the members of the National Beekeepers' Association will be held in Wellington on June 7th, commencing at 10 a.m., for the purpose of receiving the Report and Balance Sheet for the year ending May, 1916; receiving the Report and Balance Sheet of the New Zealand Beekeepers' Journal; the election of office-bearers; the appointment of an auditor for the ensuing year, and general.

The Annual Conference of the Beekeepers of the Dominion will be held in Wellington at the close of the Annual Meeting of the National. Every beekeeper in the Dominion is invited to attend this Conference, and to take an active part in the proceedings.

The Executive of the National will be pleased to hear from any beekeeper on subjects for discussion at the Conference, and to receive articles or papers on any subject relating directly or indirectly to the beekeeping industry.

On and after 3rd June all communications should be sent to Barrett's Hotel, Wellington.

R. W. BRICKELL,
P.O. Box 572, Dunedin.

HONEY FOR TROOPS AT THE FRONT.

Beadel, suggesting that a scheme might be formulated and donations of honey sent to our boys at the front. In order to give the scheme a start he has sent a donation of £100 for the purpose of purchasing honey. It is suggested that 1-lb. tins are the most suitable and convenient for transport, as the honey has to travel by mules. I would like to see all our beekeepers, large and small, come forward with gifts of honey according to their means. They can send their honey in large tins to the receiving depot, where it could be re-tinned and packed in suitable size. Mr. McCartney, Chairman of the Tai Tapu Patriotic Committee, Tai Tapu, will be pleased to receive all donations. Probably one of the Beekeepers' Associations of the North Island will also take up this matter.—T. W. Kirk, Director of the Horticulture Division.

Question.—Is brown sugar deleterious or unsafe to feed to bees? If so, why? If safe, in what proportion should it be fed for the bees to take it readily?—W. Barker.

Correspondence.

(TO THE EDITOR.)

Sir,—Can you or any other beekeeper give us any advice as to how to extract thick honey? The honey is good, often a bright golden colour, and its flavour sells it rapidly at a good price. It is, therefore, very aggravating to find that about half of it refuses to leave the combs. It is also aggravating to return the combs to the hives, broken in the extractor; and it is worse than aggravating to come inside at the end of the day tired, disheartened, and sticky, and to be met with the remark, "Well, I'd get that honey out somehow." Lots of people would offer to take Berlin if Lord Kitchener were not in charge of the job. There may be someone in the Dominion who has solved this problem. Will anyone help?—I am, &c.,

R. A. M.

(TO THE EDITOR.)

Sir,—Re honey for our boys at the front. I would like to see all beekeepers when attending the Conference at Wellington make a point to bring a tin of honey with them; the larger the sample the better for our troops. No doubt the majority of beekeepers like to see what kind of honey is being produced in other districts, and in the event of a beekeeper not being able to attend, may he pass his tin along to his neighbour to take with him, and after the Conference it could be forwarded to a suitable place to be repacked for our troops. For the benefit of beekeepers who may be attending the Conference and do not know the run of Wellington, I think it would be doing them a good turn to mention a good central place to stay at.—I am, &c.,

Whakatane, April 26th, 1916. A. L. LUKE.

(TO THE EDITOR.)

Sir,—"Critic" in the April number (page 373), in regard to what he terms growths in honey, accuses me of splitting hairs. If that be so, it is a very big hair, and can stand splitting. He says that growth is to increase in any way. Very well, take that definition. Has the honey increased in any way? He says, further, it is to enlarge; augment; expand; extend. Has the honey done any of these things? In a 56-lb. tin of honey, after what he says grows in it, weigh it, and you will find that it still only weighs 56 lbs. So that none of these things have happened to it. The formation of scum or affloresecence is not a growth. It may be air held in suspension in the body of the honey, and, being lighter than pure honey, rises to the surface in a form of froth or scum. That could hardly be called growth. Honey in the process of granulation does not do so evenly. Some parts seem to part with more of its moisture, and so become whiter than the bulk of it. This could not be called a growth either. I think "Critic" will have to give up the idea of anything growing in the honey.—I am, &c.,

May 5th, 1916. A. IRELAND.

(TO THE EDITOR.)

Sir,—The question is often asked me how many people are there in New Zealand who make a living out of bees, or, say, who keeps more than 300 colonies. I am quite aware there are a lot who keep bees, but I wish to know how many make the bees keep them; which is the most suitable way of extracting honey at the out-yards where there are no buildings, and when the season is over are the empty supers piled up and left there, or taken to the central apiary and stored under cover? Does it pay a large beekeeper to buy his queens by the hundred, or to breed them himself?—I am, &c.,

Whakatane, April 1th, 1916. A. L. LUKE.

[(1) There are about sixty men in New Zealand whose income is derived from their bees, and hundreds who work their apiaries in the summer, and follow some other occupation in the winter. (2) Will be answered by an address at Conference, which will be published later.—Ed.]

(TO THE EDITOR.)

Sir,—You had an article in the March issue of the Magazine that made me smile—viz., Mr. Cotterell has invented a method by which he cures foul-brood without destroying the combs. Just so! Mr. Cotterell is simply following out the late Frank Alexander's (Dalensen, U.S.A.) method of curing European foul-brood. It was invented or discovered nine or ten years ago. The late Mr. Alexander published this method in the Root Company's "Gleanings" long, long ago. As regards trying the same wrinkle on with American foul-brood, I should warn anyone to go slow. In my innocence, your humble servant had a go at it seven years ago. While a good colony will, if not too badly infected, clean up most of the diseased cells, you can be pretty sure that your troubles are not over with that colony. I had a recurrence of the disease in every case—that I remember well. The safest plan seems to be to set a light to the whole box of tricks. Sometimes one hears some funny theories regarding foul-brood. The following may interest you. It is perfectly true:—Coming over the Haungaroa Bridge one evening from my Martinborough yard, I met Smiling Willie (The Smiler is our local bee oracle). He unburdened himself as follows:—"Mr. Nelson, I shoost knows how this foul-brood he come. You see, the kveen pee vos mated mid the trone; she lay the goot eggs, vitch vos all right. Now de odder pee vas nod mated mid the trone; she lay the egg all right; but it vas rot-tin" (is rotten). After that I sneaked off home, and said to my wife, "Clara, what do I know about bees, anyhow." She replied, "Well, Bob, I don't know; but if you don't know something about them now, you never will. You've been talking about nothing else since I first met you." The Smiler has been keeping bees for twenty years! How the world progresses, to be sure!—I am, etc.,

Martinborough. R. H. NELSON.

EXTRACTING AND GENERAL WORK.

By W. B. BRAY.

Half the battle in extracting and half the pleasure is in having a convenient room or shed fitted up with all necessary appliances with everything clean and tidy, and no bees flying into everything. Too many beekeepers try to get along with makeshifts ,and were the general public to see their messy style of extracting, it would not give them an appetite for honey. The beekeeper should not only study his own convenience, but he should also consider what impression an outsider is likely to receive when for the first time he sees honey being extracted. Honey is not as perishable as milk, but still there are degress of cleanliness, and appearances count for a great deal. I always aim to have everything fixed during extracting time, so that any stranger coming in will be struck by the clean way in which the honey is handled.

Bees in the honey house are not to be tolerated. If any are brought in on the combs, they can be let out at the window, but if the room is not bee-tight they should be left on the window all day, when robbing is likely to get a start, or they will at once return to the room in stronger force and find a way in. While the honey flow is on it is a simple matter getting the bees off the combs. They can be roughy brushed off the combs and the supers stacked up outside until clear. An empty can be put on top in which wire cloth is fixed so as to make a cone escape. The bees soon clear out of the supers and resume their work. When the bees are on the rob I take the honey off with wire cloth escape boards. These are made by fixing an escape in a sheet of wire cloth and nailing a five-eighths by inch rim to each side. I brush or shake the most of the bees out first, and put two supers on each escape. The heat of the hive keeps the honey warm, and any brace combs are cleaned up. In this way I have taken the whole of the honey off late in the season, with never a bee hunting round the honey room.

I think many beekeepers make more work for themselves in the way they have the gear arranged in the honey room. In the first place I stow away everything not required for extracting and then clean up. I stack all the full supers of honey nearest the door; next comes the uncapping can; then the tray for the uncapped combs; next the extractor, and lastly the tank. The empty combs from the extractor are stacked in supers behind the person doing the uncapping. I keep a bucket of water and a wet towel for wiping the hands occasionally.

A good point to bear in mind when building a honey room is to locate it if possible on sloping ground so as to have two floors in it, one about four feet above the other. The tank can then be set on the lower floor and the honey can flow into it straight from the extractor. Some people advise putting the extractor on a high platform to get the same result, but I fancy it means a great deal of work passing the combs up and down. With only a single floor available, it is better to run off a bucketful at a time and lift it to the tank. With a power outfit the honey pump does the work of lifting.

Most beekeepers use a hot knife for uncapping, but I believe I do as well with a cold knife. I keep it almost as sharp as a razor, and work on the combs while they are still warm. Whether water or steam is used to heat the knife, it is rather unpleasant working over so much heat. For the same reason I do not use a capping melter, but prefer to uncap into a Dadant can and allow the honey to drain off all night. I put the cappings away in clean petrol tins, to be dealt with later on. Once I melted them down by blowing steam at 40 lb. pressure through the Baines melter, but the wax does not come off clean enough. It has to be put through a wax press in the end. The plan I intend to adopt in future is that used by Messrs. Walworth and Hobbs. They use large solar extractors made with a glass sash about 5 ft. by 6 ft. The receptacles for the honey and wax are large tins, and they are protected from the heat. The tray is covered with wire cloth, raised an inch or so by battens so that the honey runs away freely. It gets warm enough to run before the wax melts, and does not get overheated. The wax runs into the tins, and cools into lumps of all sizes and shapes, which are melted down at the end of the season. The refuse on the wire cloth is removed while hot, and eventually is put through a hot-water press. To my idea this is the best way to deal with cappings. It avoids the trouble and discomfort of the melting apparatus in the honey room. The sun does the work, and the cappings do not accumulate. Besides this all the honey is recovered in good condition.

The strainer I prefer is a shallow wooden frame with a very fine meshed wire cloth bottom. The hot knife leaves a fine film of wax, which clogs a strainer, but the cold knife leaves practically nothing. I do not think there is anything gained by warming the honey in the tank after it has gone through a fine strainer. There should be enough warmth left in it to allow pollen grains to rise in the night. I do not skim the tank until I have run the honey off nearly down to the gate. The froth has then run together in a mass at the gate.

When the bees are inclined to rob it is the better plan, if the room is available, to keep all the empty combs in till the yard is finished. Returning them to the hives to be cleaned up causes more or less robbing, which wears the bees out, and I now believe it is a better plan to keep the wet combs in all the winter. It saves a deal of work, and does not excite the bees so much in the Spring to receive wet combs.

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

The adjourned Annual Meeting of the shareholders of the New Zealand Co-operative Honey Producers' Association will be held in Wellington on THURSDAY, 8th June, at 2 p.m.

FRED. C. BAINES,
Secretary.

Hawera, April, 1916.

NEW PLYMOUTH WINTER SHOW.

JUNE 7, 8, 9, 10, 1916.

HONEY SECTION.—Entry, 1/-. Mr. O. J. Herrick's Challenge Trophy (points prize). To be won twice in succession or three times at intervals. Points Prize, W. Rowe's Special, value £1 1s., for highest number of points scored in Honey Classes.

240—1 Frame, containing 4 sections Comb Honey, W. Rowe's Special, value 10/6 & 2/6.

241—1 Hoffman Frame Comb Honey, W. Rowe's Special, value 10/6 & 5/-.

242—1 Hoffman Half-frame Comb Honey. First prize, 7/-; second 3/6.

243—Best Granulated Honey, in clear glass jar, to contain not less than 4 lbs.—First prize 10/6; second 5/-.

244—Best Sample Liquid Honey, in clear glass jar, to contain not less than 4 lbs.—First prize, 10/6; second, 5/-.

245—Best sample Beeswax, not less than 3 lbs. (for commercial purposes).—First prize 7/6; second 5/-.

246—Best Collection of Honey, in clear glass bottles, to contain 1-lb. and 2-lbs. nett of honey (commercial bottles), not less than 18-lb. To be staged on space not more than 3ft. square (labels allowed), W. Rowe's Special, value 25/- and 12/6.

Note.—This class must contain an equal proportion of 1-lb. and 2-lb. bottles, also a proportion of liquid honey.

A. L. HUMPHRIES, Secretary,
Currie St., New Plymouth.

Good Things from Everywhere.

"In the Multitude of Councillors there is Wisdom."

Clean section-supers and separators of propolis if they need it, while the weather is cool. Clean separators of any adhering brace-combs, particularly, so the fault will not be repeated. May save spoiling some nice sections.

Anyone can get a crop if they can get the weather, but it is the good beekeeper, like the good poker player, who minimises his losses under adverse conditions.

An enquiry for a quantity of strong flavoured honey has been received by the secretary of the National Beekeepers' Association. Particulars on application.

Keep extracting combs dry. If water gets in the cells they mould and blacken badly, and are never as good again. If water does get in, go over them as soon as possible and shake it out. Take the comb by the end-bars and shake up and down violently. If many, and badly wet, try the extractor.

Applications are invited from duly qualified persons for the position of Secretary to the National Beekeepers' Association for the year commencing June 1st, 1916. Particulars of duties may be had from any member of the Executive.

Beekeepers, like all others, are feeling the effects of the war in the increased cost of supplies. American files just to hand show that queen excluders have increased in value over 100 per cent., foundation, extractors, and all other sundri to a greater or less extent. With freights away up in t vicinity of 200/- per ton, nearly five times what they were before the war, means still further increases. It is indeed fortunate that the increased price for honey has come along at the right time.

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., E. W. Sage, Ohaupo.

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.