THE NEW ZEALAND BEEKEEPER

VOL. 14, No. 4 NOVEMBER, 1952

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

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

Better Beekeeping | Better Marketing

THE NATIONAL BEEKEEPERS' ASSOCIATION

President: Mr E. D. Williams, Carlton Street, Te Awamutu. ..

Vice-President: Mr E. A. Field, Norbiton Road, Foxton.

Executive: Messrs J. R. Barber, Mangaotaki Rd., Pio Pio; E. J. Kirk, 16 Selwyn St., Wanganui; G. E. Gumbrell, Geraldine R.M.D.; T. F. Penrose, Southbridge R.D.

General Secretary: Mr G. V. Fraser, F.C.S., N.Z., P.O. Box 19, Foxton.

Editor: Mr J. McFadzien, 29 Nottingham Cres., Calton Hill, Dunedin, S.W.1.

Branch	President	Secretary
Far North ..	Mr. W. J. Haines, Bonnetts Road, Kaitaia.	Rev. J. Graham, Dominion Road, Kaitaia.
Northland ..	Mr. J. Gavin, No. 2 R.D., Whangarei.	Mr. H. R. Holdaway, P.O. Box 271, Whangarei.
Auckland Cent. ..	Mr. S. Broadhead, 17 Buxton St., Pt. Chevalier, Auckland.	Mr. L. Riesterer, 72 Arthur St., Onehunga, Auckland, S.E.5.
Sth. Auckland ..	Mr. J. R. Barber, Mangaotaki R.D., Pio Pio.	Mr. J. D. Lorimer, Hoopers Rd., Hillcrest, Hamilton.
Waitomo ..	Mr. A. W. Mawhinney, No. 3 R.D., Te Awamutu.	Mr. W. Purves, No. 3 R.D., Te Awamutu.
King Country ..	Mr. E. Shoebridge, Manunui.	Mr. H. Wedde, Raurimu.
Gisborne	Mr. D. A. Barron, Waiohika, Private Bag, Gisborne.	Mr. A. Gosling, Hexton, via Gisborne.
Wairoa	Mr. P. M. Pagnam, P.O. Frasertown.	Mr. R. C. Grainger, 6 Grey St., Wairoa.
Hawke's Bay ..	Mr. L. J. Maultsaid, Box 142, Hastings.	Mrs F. D. Maultsaid, Box 142, Hastings.
C/S H. Bay ..	Mr. C. Hedge, Hatuma H.B.	Miss S. Hedge, Hatuma, R.D., Hawke's Bay.
Taranaki	Mr. H. R. Penny, High Street, Hawera.	Mr. J. S. Mail, Box 307, Hawera.
Wanganui ..	Mr. E. J. Kirk, 16 Selwyn Street, Wanganui.	Mr. R. Scoular, Rodney Street, Durie Hill, Wanganui.
Manawatu ..	Mr E. A. Field, 59 Norbiton Rd., Foxton.	Mr R. S. Wait, 76 Norbiton Rd., Foxton.
Wellington ..	Mr. Geo. Ayson, 66 Falkirk Ave., Seatoun, Wellington.	Mr M. Crane, 210 Waterloo Rd., Lower Hutt. Hutt.
Nelson	Mr. J. A. C. Bell, Richmond R.D., Nelson.	Mr. R. Whitwell, 18 Mt. Pleasant Ave., Nelson.
Buller	Mr. J. Dowse, Waimangaroa, Westport.	Mr G. Stone, 61 Derby Street, Westport.
West Coast ..	Mr. E. Airey, 29 Palmerston St., Greymouth.	Mr. R. V. Glasson, Blackball.
Canterbury ..	Mr. A. R. Gossett, Leeston.	Mr. R. Bushby, 193 Wairakei Road, Fendalton, Christchurch, N.W.3.
South Canterbury	Mr E. O. Ball, Hook R.D., Waimate.	Mr. R. Davidson, 190 Otipua Rd., Timaru.
North Otago ..	Mr. T. Brown, Eden Street Extn., Oamaru.	Mr I. A. MacKinnon, 6K R.D., Oamaru.
Otago	Mr. A. J. H. Shaw, 39 Signal Hill Rd., Dunedin, N.E.1.	Mrs. A. J. Simon, Fairfield, Otago.
Clutha	Mr. M. Morrison, North Balclutha.	Mr. A. W. Ogilvy, Romahapa.
West Otago ..	Mr. A. May, Island Block, R.D., Miller's Flat.	Mr. E. Winslade, Kelso.
Gore	Mr. W. T. Herron, No. 5 R.D., Gore.	Mr. F. J. Glass, Waikaka Valley, No. 5 R.D., Gore.
Southland ..	Mr. L. K. Griffin, Woodlands, No. 1 R.D., Invercargill.	Mr. J. W. Fraser, Ryal Bush, No. 4 R.D., Invercargill.

The New Zealand BEEKEEPER

Published Quarterly in February, May, August and November,
by the National Beekeepers' Association of New Zealand (Incorporated).
J. McFadzien, Editor.
Subscription, 8/- per annum, post free. Members 3/- per annum.

VOL. 14, No. 4 NOVEMBER, 1952

EVOLUTION OF THE HONEYBEE.

A BROADCAST ADDRESS BY I. W. FORSTER,

Apiary Instructor, Oamaru.

Flowering plants first made their appearance on the earth about one hundred million years ago.

Some of the insects that existed then commenced to visit the blossoms as they found that the pollen and nectar provided a welcome addition to the meat diet that they had hitherto lived upon.

In time, certain members of this insect family completely forsook their carnivorous habits and not only did they live entirely on nectar and pollen themselves, but also commenced carrying supplies home to feed their young.

Thus the ancestors of the honey bee came into existence to commence a long process of evolution.

The activities of these early bees carried pollen from flower to flower and so ensured a high percentage of fertilisation. This provided most flowering plants that they visited with a superior reproductive system which gave them an ascendancy over the other vegetation.

These early bees would be solitary insects. Each female would mate, then produce and care for her own brood.

Now just what was it that caused the original bees to depart from their lone habits and adopt the communal way of life?

We know that during the millions of years of the earth's existence there have been several ice ages when the polar ice and snow have encroached nearly to the equator. It is reasonable to assume that it would be such circumstances that forced the bee to adopt its present way of life.

The approach of these more rigorous climatic conditions would first be felt during the winter time when a complete absence of flowers would be likely to occur for fairly lengthy periods. Night temperatures would also become lower than the bee was capable of enduring.

The first step in the evolution of the bee colony may well have been a mere clustering together for warmth.

Next would come a natural instinct to store food at the clustering point. Once some sort of a common food store had been established, the females would endeavour to raise their brood in close proxmity to it.

Having got to the stage where a colony of bees would store the surplus food gathered during the summer for consumption during the winter, the survival of the honey bee would seem to be assured.

However, as the summer seasons shortened, it became difficult for a colony comprising a certain number of individuals to store enough food to carry that same colony through the winter.

This apparently insurmountable obstacle in the battle for the survival of the species, was eventually overcome by a seasonal adjustment of the population of the hive, in this way. The number of individuals in the colony during the winter was decreased to about a quarter of the number present during the summer. The surplus stored by the large gathering force was then ample to maintain the reduced numbers during the winter.

This adjustment was probably made

possible by the very circumstances that it was destined to overcome. When the food supply became very short, some batches of brood would have to be raised on a very low diet. This may have stunted their growth to such an extent that they were unable to perform the ordinary functions of their sex. The maternal instincts of the undeveloped females could quite naturally turn to an intense interest in the wellbeing of the colony as a whole, and all their energies would be devoted to this purpose.

Lack of nutrition during the embryo stage, coupled with the strenuous nature of the work performed, made these workers comparatively short lived. At the beginning of winter then, many would die, thus causing that reduction in hive strength so necessary to allow the available stores to be eked out through the winter.

Gradually the percentage of workers would increase, and the number of fertile females become less, until that final stage was reached when one queen only layed all the eggs in the hive.

The physical demands of caring for the colony caused the worker bee to evolve many special organs and instincts. This process finally produced the worker bee as we know her to-day, with her sensitive antennae equipped with masses of sense cells.

Her large, many faceted, compound eyes for vision in the field.

Her three simple eyes for use in the dim light of the hive.

Her toothless jaws, modified for the modelling of wax or the handling of food but incapable of mutilating flowers or fruit.

Her proboscis, where the tongue combines with other mouth parts to form a very efficient pump for taking up nectar from flowers.

The glands in her head which secrete the brood food. This food has properties so wonderful that it causes the honey bee larvae to increase its growth by 240 times in three days.

Her two pairs of powerful wings. These can be joined together with a most convenient zip fastener to increase their efficiency.

Her six legs, wonderfully modified to provide most of the tools required for the bees' various duties.

Her honey sac for transporting loads of nectar.

Her sting, so essential for the defence of the colony.

The wonderful arrangement of hairs over the whole body and especially on the hind legs, where a circle of hairs is so ingeniously placed that a large knob of pollen can be packed there for transport.

When the honey bee colony first began in its primitive form, the actual sorting of the food must have presented some problems.

The unique supply of food available from the flowers was excellent. The nectar provided sugar well balanced with certain minerals and beneficial chemicals. The pollen supplied essential protein.

Such a diet was perfect for the summer and the nectar was probably first stored just as gathered from the flowers. However, it would soon be found to have limitations as sustenance for insects during the long winter period of inactivity.

Firstly, the water content was too great and so a process of evaporating the excess moisture had to be evolved. This was accomplished and effectively reduced the bulk of the stored food, improved its keeping qualities, and limited the amount of waste matter to a negligible quantity.

The other disadvantage was that sucrose, which is the main ingredient of nectar, is a compound sugar. The strain of digesting such a sugar during the dormant period had an ill effect on the health of the bee.

Now, before the alimentary system of any animal can assimilate a compound sugar, the digestive system must split it into simple sugars. Sucrose is split or digested by the action of a substance called invertase, which is present in the digestive systems of most animals. So the bee colony found a way of building up the invertase content of the nectar during the gathering and storing process. This actually pre-digested the sugar content.

Thus honey came into being, and the bee provided itself with a unique food that would keep the spark of life alight when her tiny body was nearly paralysed with the cold, or would provide the boundless energy neces-

sary for the exertion and continuous work in the high summer temperatures.

So while the precise details of the development of the bee colony are not exactly clear, we can trace the important steps that were taken.

Firstly, the creation of the worker bee. It is the efficiency of the workers in performing their selfless duties that allows the bee colony to give service to the plants and animals of the earth.

Secondly, the seasonal adjustment of the hive's population to allow a reduced colony to survive through the winter. While the honey bee may have survived by hibernating for the winter, like some other insects and animals do, or even perhaps by migrating, the adoption of such habits would have made the bee population most unstable. The fact that evolution did guide the bee along a path that led to its living in a community with a continuity of existence where it remains as active as possible at all times must have had a far-reaching effect on the development of plant life. Flora would have made very slow progress had it depended on the precarious existence of hibernating or migratory insects for the vital services of pollination.

So as it has been said, the honey bee by perfecting its social system hundreds of thousands of years ago, actually laid the foundation for man to develop his high standard of civilisation. It is sound reasoning to assume that man could never have attained his present way of life in a world that only supported reeds, ferns, and conifers, and was inhabited by reptiles.

The next step in the history of the bee colony strengthened further the bees' relationship with mankind. This was when man began to exploit the beehive to obtain that most palatable and health-giving of foods, honey.

But that is another story.

My candle burns at both ends;
It will not last the night;
But, ah my foes, and oh, my friends—
It gives a lovely light!

NOTICE BOARD

MARKETING COMMITTEE

At the recent election of one Producers' Representative on the Honey Marketing Committee the retiring member, Mr F. D. Holt, was returned unopposed.

BEESWAX

The maximum price that may be paid for beeswax is now 4/3 per pound free on rail. This provision is contained in Price Order No. 1410 (Beeswax), which came into force on the 26th September, 1952. Previously the maximum price was 3/6 per pound.

1953 CONFERENCE

The 1953 Dominion Conference is to be held in Wellington.

HONEY PAYMENTS

Details of the final honey payments made by the Marketing Department for the 1952 season and of initial payments to be made for the 1953 season are given in this issue by the Honey Marketing Committee.

PUBLICITY

Honey was featured in Aunt Daisy's page in two issues of the "N.Z. Listener" during September. "Ideas for cooking with honey are pouring in," says the second article, "from people who have long realised its great value, and also from those who are just finding it out."

OBITUARY

MR W. P. CARTER

We record with regret the death of Mr William Percy Carter, of Lower Hutt, and formerly of the Wairarapa, a well-known figure in the National Beekeepers' Association.

Mr Carter, who was born and edu-

cated in Marton, was the grandson of early immigrants who arrived in Wellington in the Aurora in 1840. For 20 years he practised as an accountant, secretary, and auditor in Eketahuna.

He took a prominent part in the development and management of the dairying industry, being for 14 years secretary of the Mauriceville Dairy Company and helping to establish 11 other dairy companies in the surrounding district.

He came to Lower Hutt 15 years ago as accountant in the Dominion Life Assurance Office, which position he held until his retirement five years ago.

He was at all times interested in local affairs and he took an active part in local body and education administration both in the Wairarapa and in Lower Hutt.

Mr Carter was the founder of the Wellington Branch of the National Beekeepers' Association and was its Secretary-Treasurer for 13 years until the end of last year. It was chiefly due to his enthusiasm that this Branch attained the largest membership in the Dominion, and at the same time he took a keen interest in the wider problems of the honey industry.

He is survived by his wife and two sons, to whom we extend sincere sympathy in their bereavement.

BEESWAX MARKET

Position in Australia

"The market for beeswax has been maintained at about 7/- per lb, but importations from New Zealand have been available at lower figures. It is hoped that such importations will be reduced by import restrictions recently applied."

The above statement appears in the report of the Victorian Honey Advisory Council in "The Australian Bee Journal" for August, 1952.

BEES FROM NORTHLAND

Pollination in Canterbury

Ten cages of Northland bees, each containing a queen and three pounds of workers, have been received by air

freight from Whenuapai by two officers of the Department of Agriculture who are experimenting in the pollination by bees of clover in the Rangitata Gorge area. The officers are Mr I. W. Forster, Apiary Instructor at Oamaru, and Mr F. A. Bartrum, Apiary Instructor at Christchurch. They left Christchurch on Wednesday for the Rangitata Gorge to establish the bees in hives.

Owners of back country stations say that, without bees, clovers do not set seed, and there is no new generation. Invitations to beekeepers to establish hives have not been accepted because of the remoteness of the country and the difficulty in keeping bees alive through the severe winters after getting them over rough roads.

At the end of the experimental season the bees will be gassed and all the honey removed. The experiment should decide whether bringing bees from Northland, where the nectar flow starts early and gassing them at the end of the season is economical.—Christchurch "Press," 31/10/52.

WEEDS CONFERENCE

Mr G. E. Gumbrell represented the National Beekeepers' Association at the Weeds Conference held at Lincoln during August. Mr Gumbrell briefly addressed the conference, mentioning the value of bees in agriculture and the consideration which should be given to them in the application of chemicals for weed control.

MANUKA BLIGHT

"I regret that my department is at present unable to intensify research on the manuka blight problem," advises the Minister of Scientific and Industrial Research, Hon. R. M. Algie, in reply to a letter on the subject from Federated Farmers.

The staff of the Entomological Research Station was limited and the officers who had been studying manuka blight were mainly occupied with the problems of the grass grub and allied pests, he explained.

Up to the present the department had been studying the insect to try to establish its identity, its origin, its life cycle and habits, its host range and its effect on manuka species. Also to a limited extent its possible effect on other plants was being studied. —"Straight Furrow."

PRESIDENT'S COMMENT

From the 1952 Conference Address by the Dominion President, Mr E. D. Williams

I should like to mention that cordial relations existed throughout the year between the Executive and the Marketing Committee and also the Marketing Department, but I should like to refute at this stage any suggestion that members of the Executive were in any way influenced by a financial grant from the Marketing Committee when considering an increase in the Seals Levy.

During the last few years your Executive has been more and more occupied with Marketing problems but it has not been able to devise any method of stable marketing which does not include a fund which can only be provided by a Seals Levy. Most of the members of your Executive are producer packers, at least three, including myself, have not supplied the Marketing Department at all this year. Nevertheless even though some members of the Executive had been instructed by Branches not to support an increase in the Seals Levy, after carefully examining marketing conditions they reluctantly came to the conclusion that an increase in the Seals Levy was the only possible way of ensuring a continuance of stable marketing and unanimously supported that increase.

I know there is much criticism of the Marketing Department, but let it be constructive. Our aim should be to improve our marketing organisation, not destroy it. The day may not be far distant when producers will have to take over the management of marketing themselves and it will be greatly to their advantage if, at that time, there is to take over a sound marketing organisation enjoying the confidence of the producers.

There are two matters on which I wish to criticise the Marketing Committee. Firstly in regard to low

specific gravity honey, of which there has been quite a lot sent to the Marketing Department this year, and also doubtless packed by producer packers. I was shocked to learn that the Marketing Committee had no method of dealing with this honey and that suppliers were offered the alternative of accepting a very low price or taking their honey back. I had thought that the packing plant would have been able to remove excess water from the honey. If the plant in its present form is unable to raise the specific gravity sufficiently, surely at reasonable expense it could have been altered to do the job. In my opinion producers have the right to expect that the central packing plant would be able to handle low specific gravity honey.

The other point of criticism I have to make is lack of advertising. In view of the large stocks of honey held in parts of the Dominion I think the Marketing Committee should have undertaken an advertising campaign in order to stimulate sales of honey. The whole idea of the marketing scheme is to promote sales of honey and if the Marketing Committee is only going to concern itself with the honey sent to the Marketing Department it will defeat its own object, as producer packers will be forced to cut prices and the Marketing Department will not be able to sell its product at the maximum price.

Honey in Icings

When making a boiled frosting for a cake, add 1 tablespoon honey when it is nearly ready to spread, and your frosting will not harden. The flavour of all varieties of ice cream is much improved by using all, or part, honey sweetening. Use warm honey and chopped nuts as a sauce for plain ice cream. Or blend 2 cups icing sugar, 3 tablespoons honey, 2 tablespoons melted or softened butter and ½ teaspoon almond essence (or as preferred). Then add boiling water just by the teaspoonful until right for spreading.

EXECUTIVE MEETING

A meeting of the General Executive was held in Wellington on November 4th to 7th, 1952. The President, Mr E. D. Williams, was in the chair and all members attended. The Editor, Mr J. McFadzien, was also present.

A number of important matters were discussed and a report of the business transacted will be supplied to branches.

CONSTITUTION: The two amendments to the constitution which were carried at the 1952 Conference have now been incorporated in the Rules of the Association. The first amendment provides that any person, not being a member of the Association, may be present at a meeting of the Association by invitation of the General Executive, and may speak at the request of the meeting. The second amendment provides that the election of the Executive be conducted on the preferential system of voting.

COST OF PRODUCTION SURVEY: The survey carried out by the Extension Division of the Department of Agriculture has now been completed and figures showing the cost of producing honey will be available shortly. It is anticipated that these will be comparable with the prices set out in the current price order.

MARKETING REGULATIONS: The meeting considered at some length the terms of a Honey Industry Agreement under Section 5 of the Finance Act (No. 2), 1948. The purpose of such an agreement is to facilitate the administration of the seals revenue fund to be known as the Honey Industry Account.

Consideration was also given to the provisions of the Honey Marketing Regulations and in this connection Mr Beard, of the Marketing Department, and Messrs A. C. Bridle and W. Nelson, representing the Honey Marketing Committee, were present at the meeting in order to discuss the proposed alterations.

REPLIES TO CONFERENCE RESOLUTIONS

Office of Minister of Marketing,
Wellington, 7th August, 1952.

The General Secretary,
National Beekeepers' Assn. of N.Z., Inc., Foxton.

Dear Mr Fraser,

Thank you for your letter of the 14th July conveying the text of Conference resolutions. I have taken account of the voting and of the objections raised, and am satisfied that the majorities stated are sufficient indication of the wishes of the industry as a whole.

I will now deal with the various points raised in the resolutions submitted. The recommendation for an increase from ½d per lb. to 1d per lb. in the seals levy rate indicates that your industry is prepared to accept the responsibility of having and operating a central marketing organisation, and is a further step towards the time when your industry can assume complete responsibility for the operation and management of the central packing plant. The decision to provide your Association with financial assistance from the seals fund should enable the Association to further strengthen its organisation and service to beekeepers.

The resolution dealing with the stamping of all retail honey containers up to and including 10lb. at the source of manufacture is straightforward and requires no special comment at this stage. The extension of the qualification for nomination to the Honey Marketing Committee is a matter of great importance to the industry and, in particular, to the structure of the industry organisation that will ultimately be charged with the control and management of the marketing organisation. As you have indicated, it will not be possible for any change to be made before the 1953 Committee elections.

Instructions have been given that draft amending regulations be prepared, and, when this has been done, copies will be sent to you for consideration by your Executive. I think that copies should also go, at the same time, to the Honey Marketing Committee, which will be concerned with carrying the regulations into effect. I shall be glad to have your assent to this.

There is one further point in your letter which should be answered now, and that is the matter of subsidy on honey exported. It is not Government policy to subsidise exports and I see little likelihood of exception being made in favour of honey.

Yours faithfully,
(Signed) S. W. SMITH,
For Minister of Marketing.

REPLY TO MINISTER

12th August, 1952.

Mr S. W. Smith, M.P.,
Parliamentary Under-Secretary,
Ministry of Marketing,
Parliament Buildings, Wellington.

Dear Sir,

Please accept my thanks for your letter in reply (2) dated the 7th August and 11th August respectively.

Honey Marketing Regulations

It is noted with satisfaction that immediate steps are being taken to provide draft amending regulations to give effect to the industry's wishes, as decided at the recent annual Dominion Conference.

I agree entirely that copies of the draft should be made available to the Honey Marketing Committee at the same time as they are furnished by

my Executive.

Subsidy on Honey Exports

It is realised that it is not Government policy to subsidise exports, but the beekeeping industry in this regard is in an entirely different category to all other groups of primary producers in the Dominion. The industry rightly feels that it has special claims for consideration in this matter, and it is earnestly hoped that the Minister will give my Executive an early opportunity of stating its case in this connection.

It is not considered that the sum involved will be very great, but the whole future of the industry is dependent upon a stable market within the Dominion, with returns to producers comparable with those of other sections of primary producers.

The beekeeping industry is vital to the maintenance and development of agriculture and horticulture in this country and while honey producers have voluntarily agreed to levy themselves to the extent of 1d per pound in order to achieve stability through the central marketing organisation, surely the Government must be concerned where the returns from export (which is considered essential in order to maintain a balanced market in New Zealand) fall below the cost of production.

My Executive sincerely trust that most favourable consideration will be given to their representations on this matter.—Yours faithfully,

G. V. FRASER,
General Secretary.

Office of the Minister of
Internal Affairs,
Wellington, C.1, 1st Aug., 1952.

The General Secretary, National
Beekeepers' Assn. of N.Z. Inc.,
P.O. Box 19, Foxton.

Dear Sir,

I received your letter of the 28th July conveying a resolution passed at the Annual Dominion Conference concerning manuka blight. The terms of the resolution have been noted and will receive every consideration.

Yours faithfully,
(Signed) W. H. BODKIN.

Office of Minister of Marketing,
Wellington, 11th August, 1952.

Mr G. V. Fraser,
General Secretary, National
Beekeepers' Assn. of N.Z., Inc.,
Foxton.

Dear Mr Fraser,

Thank you for your letter of the 28th July conveying the text of further resolutions passed at your Dominion Conference.

The first one which requests the set up of a Committee of Enquiry has been met by the previous appointment of a Caucus Committee to look into the whole of the activities of the Department and of the boards and committees associated with it. The additional Committee of Enquiry which you request is therefore not now required.

I note that there is a widespread feeling that the present Central Honey Marketing organisation is not adequately dealing with the industry's problems and I am sure that the Caucus Committee will be very interested in the reasons for this opinion. I am therefore drawing the attention of the Chairman, Mr S. W. Smith, M.P., my Parliamentary Under-Secretary, to your remarks.

Remits 2, 3 and 4 are matters to which I will give further consideration later.

I note that No. 5 has been taken up with the Director of Price Control.

In regard to No. 6, there is provision under the Marketing Acts whereby an agreement may be entered into between myself as Minister and the body representing any industry, for the creation of a Pool Account. The agreement generally provides for discussions between the Minister and the industry representative body as to the disbursement of any balance in such Pool Account.

The position with the honey industry is that there is a Pool Account which ante-dated the legislation referred to. So far no agreement has actually been entered into between me and your Association. If this were done the points which are raised in paragraphs (6) and (7) would be covered.

The procedure in this latter case is for the industry body and the Department to agree as far as possible on

the terms of the agreement and any difference of opinion is submitted to me for decision. In the past, however, it has been possible to get unanimity between the Department, which in effect negotiates on my behalf and under my direction, and the industry body concerned.

Yours sincerely,

(Signed) S. W. SMITH,

For Minister of Marketing.

Office of Minister of Agriculture,
Wellington.

G. V. Fraser, Esq.,
General Secretary, National
Beekeepers' Assn. of N.Z., Inc.
P.O. Box 19, Foxton.

Dear Mr Fraser,

Further to my letter of 13th August, my replies regarding resolutions passed at the last Annual Conference of your Association are:—

Resolution No. 1:

"That a copy of the grading regulations be presented to Conference and discussed and that we request the Department of Agriculture for a statement of who sets the standard by which they grade, and how much has been rejected by the Grader for being below standard, and how much rejected outright."

Two copies of "The Honey Export Regulations 1950" are attached. These regulations consolidate with some amendments the old regulations governing the grading of honey for export and were approved by the Executive of the National Beekeepers' Association, also by the Honey Marketing Committee and the Marketing Department to whom they were submitted for consideration and comment when in draft form.

The standards to which honey is graded were agreed on following conferences between representatives of the beekeeping industry and officers of the Departments of Agriculture and Marketing.

The disposal of any honey which does not reach the required standard and which is unsuitable for ordinary blending purposes and is rejected by the Grader, is a matter for negotiation between the particular producer concerned and the Marketing Department.

Honey below standard sent to the Grade Store during the twelve months ended 31st July, 1952, was—

Manuka Honey: Unsuitable for ordinary blending, and purchased by the Department, 465 cases (65,946lb.).

Honey of low specific gravity: 1149½ cases purchased by the Department; 412 cases repossessed by suppliers; 267 cases not yet purchased or repossessed.

Other honey rejected and repossessed: 143 cases.

Resolution 2:

"That in serious cases of breaches of the Apiaries Act, such as negligently exposing diseased foulbrood, the Department of Agriculture, Horticulture Division, should take immediate steps to prosecute in addition to burning."

Under the Apiaries Act, a beekeeper cannot be prosecuted for having disease in his apiary unless he knows disease is present or unless he has been given notice to cure the disease and has failed to comply with such notice. No right to prosecute arises where Departmental officers on finding disease, particularly in neglected apiaries, burn the contents of the diseased hives without first putting the owner under notice. It is considered more effective in some cases for the Apiary Instructor to burn diseased hives immediately rather than to proceed by way of notice and prosecution and thus delay action.

Resolution 3:

"That part-time apiary inspection be continued and that sufficient money be made available to meet rising costs."

The inspection of apiaries by part-time inspectors for control of bee diseases will be continued this year. Sufficient finance is available to carry out the full programme of work recommended by the Department of Agriculture. In this connection it will be up to the beekeepers who accept duty as part-time apiary inspectors to carry out the work allotted to them.

Resolution 4:

It is noted that you have sent to the Hon. Minister of Internal Affairs a copy of resolution No. 4 regarding manuka blight. No doubt you will receive a reply from him in due course.

Resolution 5:

"That steps be taken by the Government to implement the recommendations made by the General Executive to officers of the Department of Agriculture in Wellington, that a special committee be immediately set up to investigate and control the position regarding the use of poisonous sprays and insecticides.'

So many new chemicals are coming on to the market for use as weedicides, fungicides and insecticides that it has been found impracticable to bring all interested parties including commercial bodies together as a committee to investigate problems involved.

Arrangements have been made for experiments to determine whether the use of D.D.T. super compound for control of grass grub, during the period when main pasture nectar sources are in bloom, would cause serious mortality of honey bees. Your Association will be advised of the results of these experiments. If it is found that any substance used for control of weeds or pests would cause serious bee mortality, appropriate action to deal with the problem will be taken.

The action of the Association in passing a vote of thanks to officers of the Horticulture Division is appreciated, and has been conveyed to the officers concerned. I am sure that a cordial spirit of co-operation between producers and Government officers does much to promote the success of any primary industry.

Yours faithfully,

(Signed) S. W. SMITH,

For Minister of Agriculture.

MARKETING DEPARTMENT
(HONEY SECTION)

Total receipts of honey into the various depots for the 12 months ended 31st August, 1952, were:—

Auckland	265 tons
Christchurch	258 „
Dunedin	173 „
Greymouth	12 „
	708 tons

Packed during the year:

	Containers	Tons	Cwt.
1lb. Glass Jars	42,806	19	2
1lb. Pots	472,383	210	18
2lb. Pots	272,070	247	8
2lb. Tins	60,882	54	7
5lb. Tins	45,815	102	5
Bulk Tins (ea. 58lb.)	7,254	187	16
	901,210	821	16

Sold Locally:	Tons	Cwt.
Merchants	543	15
Manufacturers	84	4
Hospitals	8	13
Armed Forces	6	17
Govt. Departments	5	17
Sundries	9	6
	658	12

Exported:	Tons
To Germany	100
„ United Kingdom	273
„ Singapore	2
	375

J. A. TARLETON,

Manager Honey Section.

HONEY MARKETING COMMITTEE

1952-53 SEASON

Producers have already been advised that a final flat rate bonus has been declared at 3½d per lb. except for Birch honey which will receive a bonus of 2½d per lb. In addition to the above, bonus premiums of ¾d per lb. and a ½d per lb. have been paid for honey received under contract conditions and supplementary contract conditions respectively. The maximum payout, excluding contract premiums, amounts to 1/- per lb. and as during the year increases in production and packing costs were admitted and provided for by increases in the retail price order, it gives us much satisfaction to increase our payout over the maximum figure of 11d per lb. which operated last season.

The total receipts during the year amounted to just over 700 tons and the receipt of this quantity under production conditions existing last season was very gratifying.

Local Sales amounted to 658 tons, the bulk of which readily sold under the Green Seal Honeyco label. This pack was discontinued when our darker honeys were exhausted and was replaced on the local market with Red Seal Honeyco or an equivalent pack under the Imperial Bee label. We have made available for the local market such quantities that were in ready demand by the trade and we have endeavoured to compute forward local and export packed sales which, together with a reasonable stock carry-over, provides an indication of the additional quantity of honey for which overseas bulk sales outlets are required. Local sales remained brisk until July and August or until just after the last retail price increase. Heavy stocks of packed lines were held at that time by producers, retailers and wholesalers and an advertising campaign was undertaken by radio and screen to assist the position. It has been noticed that many retail prices are at present operating and we trust that an effort will be made to avoid price cutting so that the production costs of 1/1 per lb. provided in the Price Order may be obtained.

Export of honey overseas amounted to 375 tons. Our export quantities can be stepped up in relation to receipts and sales but while the sale of our packed line is below the quantity required we must endeavour to minimise by quantity control, the loss to the Pool arising out of bulk line sales.

We have recently had valuable discussions with our London Representative who is now in New Zealand and we trust that the implementing of our decisions will remove some of the difficulties that we are now experiencing in our efforts to step up packed sales in the United Kingdom.

Manuka : Our final payment was equal to 7¾d per lb. and although the overseas position appears good at present, our Committee would suggest caution in developing production.

Over-Moisture Honey : It is necessary to remind producers that every care should be exercised with production methods. We would refer producers to the valuable article published in the November, 1951, issue of the "Beekeeper" by Mr Walsh. Grading standards for specific gravity will not be altered. Honey which fails to conform to a specific gravity of not less than 1.420 will not be accepted under contract conditions and is liable to rejection from Pool conditions.

Season 1952-53 : The contract system of supply will be continued for blendable lines and producers should make application to any office of the Marketing Department not later than the 7th December, 1952. Contract forms will then be sent to sup-

pliers for signature and the contract quantities acceptable may be influenced by the manner in which contract obligations have been met in past years. Completed contracts should be ready for posting back to suppliers by the 21st December, 1952.

The following main conditions apply :—

1. The initial advance will be 9d per lb. pro rata. This means a step-up on last season's figures and has been agreed to in anticipation of the increase in the seals levy which will help to reimburse the Pool for loss occasioned in conforming to Industry policy.

2. Contracts will be in respect of honey which grades at least eighty-five per cent of the flavour points obtainable and fifty per cent of the colour points obtainable and which is delivered to an authorised depot not later than the 30th June, 1953.

3. Contract premium will be ¾d per lb. and supplementary contracts, which may be accepted for one hundred per cent. of the initial contract quantity, carry a premium of a ½d per lb.

4. Quantity, quality and delivery conditions must be fulfilled in order to qualify for the contract premium.

5. The nature and amount of any final bonus will be determined by the Committee at the end of the season, with the desire to return to producers market values for the honey supplied.

6. Honey other than contract honey will be received into the Pool under ordinary conditions, if delivered by the 30th June, 1953.

7. Manuka honey of export standard will be paid an initial advance of 7d per lb. if forward supply arrangements are made with the Department.

A. C. Bridle, Chairman,
Honey Marketing Committee.

The most extensive undeveloped territory in the world is under your hat.

Colony Management

In some instances, colonies that reach their peak of strength before the major honey flow starts, lose their morale and do not store as much surplus as those that reach their peak at the time the honey flow begins, or perhaps a little after. Personally, I like to see colonies reach their peak a few days after the major flow begins. They are then on the up-grade and may not get the swarming fever as quickly as those that reach their peak of strength before the main honey flow starts. To have colonies reach this peak at the proper time is a problem in apiary management that is not easily solved because the main flow may not start at the same time every year.

—M. J. Deyell in "Gleanings."

Honey Flow

Bees were rolling in the pollen nearly all day. I thought they looked rather full as they entered the hive, so I caught one which did not have pollen, and held it up to the sun to examine the abdomen. When I squeezed the abdomen a large drop of nectar came out of the bee's mouth. I know it was nectar because I tasted it. One has to be careful when squeezing nectar out of a bee, to avoid hurting it or getting stung. There is a certain technique to be followed. Each person who does this has perhaps developed his own method. I simply hold the bee by the wings with the thumb and first finger of my left hand, then press the abdomen of the bee with the finger-nail of the right hand, being careful to avoid being stung. This causes the bee to regurgitate the nectar from its honey sac.

—M. J. Deyell in "Gleanings."

DEPARTMENT OF AGRICULTURE
HORTICULTURE DIVISION

Seasonal Conditions

Reports received from most parts of New Zealand indicate that the season is earlier than usual.

The bees generally have had an almost uninterrupted run of favourable weather at critical periods enabling them to work early nectar sources this year, consequently there has been little artificial feeding required up to the end of October in most parts.

Honey crop prospects generally, up to the present are good.

Manuka Honey

It is not the intention of the Department of Agriculture to encourage increased production of Manuka honey, except for essential bee feeding purposes, unless more regular payable markets can be found for that class of product.

Manuka honey can be clarified and packed in clean granulated condition, but special methods of extracting and packing are necessary to ensure that condition.

To assist those beekeepers who operate established apiaries which cannot be conveniently moved away from manuka areas, field officers of the Department recently visited a number of leading producers in North Auckland for the purpose of examining the equipment and methods used by them to extract and pack Manuka honey, to see whether a standard plant could be developed for general use to handle that type of honey, by incorporating some of the equipment now in use in various honey houses inspected.

It was felt that this could be done with the co-operation of the producers concerned and arrangements have been made for the matter to be followed up during the current season.

It is hoped to have suitable information ready by the end of the season to enable beekeepers concerned to make any necessary adjustments to their plant in time for the following year's production.

Use of D.D.T. Super Compound

Arrangements have been completed with Wallaceville Animal Research Station and Extension Division for experiments in the Marton district during the coming season to determine whether the use of D.D.T. for control of grass grub is dangerous to honey bees if applied to clover pastures when in bloom.

Beekeepers in all districts, with hives established in areas where D.D.T. or B.H.C. (benzene hexachloride) is applied extensively by farmers during the current season can assist along the lines stated in the August issue of 'The N.Z. Beekeeper.' An indication of the chemical used in the district should be given when forwarding dead bees for examination, and the local Apiary Instructor should be advised immediately of the position so that he can make any investigations on the spot he considers desirable.

Honey House Construction

To meet the wishes of many beekeepers for information regarding the general layout of a modern honey house, incorporating present - day essentials, and conforming to the Food Hygiene Regulations, 1952, a special article on that subject has been prepared by Mr C. R. Paterson, Apiculturist, and will be published in the December issue of the Journal of Agriculture.

Registration of Apiaries

Decentralisation of apiary registration, to simplify registration procedure and associated work as far as possible, has been decided on.

It would have been difficult, however, to complete the necessary arrangements in time for the changeover to coincide with the last expiry date for apiary registrations on 30th

October, 1952. It was therefore decided to postpone statutory re-registration for one year, to ensure a smooth change-over when re-registration takes place.

This has been provided for in The Apiary Registration Regulations, 1937, Amendment No. 2 (24th September, 1952), extending to October 31st, 1953, the expiry date of the current term of registration of apiaries.

Meantime all applications for new apiary registrations and also notification of increases and decreases must be sent to The Director, Horticulture Division, as usual.

T. S. WINTER,
Superintendent, Beekeeping Industry.

FAR NORTH

Annual Report for Year Ended 31st May, 1952

The Far North Branch, which has a membership of 13, held six meetings during the year under review. As some of the members live a considerable distance from the centre the average attendance of 6.5 may be considered satisfactory.

In October an out-of-doors demonstration was conducted by Mr D. Roberts, the district Apiary Instructor. As this function fell on the centenary of the main work of Langstuoth, the secretary gave a brief outline of his life and work.

Visiting speakers during the year were Mr T. S. Winter, Superintendent of the Beekeeping Industry, Mr A. C. Paterson, Apiculturist, and Mr W. B. Bray. The Branch was particularly interested in the visit of Mr Winter, and took the opportunity of thanking him, as head of his department, for the services given by himself and his staff to the industry generally and to Far North members especially.

Once again members arranged a display of honey and beeswax at the Mangonui A. and P. Show. As in former years there were not sufficient entries to make the display as attractive as it could have been. This is an excellent opportunity for beekeepers to advertise their products. It deserves a greater degree of support.

Below average honey crops were harvested this year, and although an increase in price was authorised it was announced too late in the season to be of benefit to Northern beekeepers.

The Branch notes with interest the efforts of the Marketing Department to find an outlet overseas for full-flavoured honeys and trusts that the attempts will be successful. It appreciates too, being advised from time to time of the situation in the overseas market.

The Branch records its appreciation of the work by Mr Roberts during the year. As a result of the attention given by Mr Roberts and his predecessors the incidence of disease has been reduced to a minimum in this very extensive area.

Finally, the Branch would express thanks to the General Secretary, the Executive and the Journal Editor for their services during the year.

MANAWATU

(Editor's Note: The following report was received in August)

At the annual meeting of the Manawatu Branch, held recently in Palmerston North, members elected the following to office: President, E. A. Field, Foxton; Vice-President, R. H. Hobbs, Kairanga; Committee members, T. S. Bond, Feilding, S. L. Green, Palmerston North, and R. C. Violich, Kairanga; Secretary, R. S. Wait, Foxton.

Mr L. H. Johnson, Apiary Instructor, spoke about spring feeding of colonies and explained the methods used. Hive covers, mats and condensation were discussed and the necessity of maintaining dry conditions in hives was stressed. Mr Johnson spoke of manuka blight and its effect on beekeeping.

With the Apiary Instructor as projectionist we were treated to a film interlude; a pleasant twenty-minute visit to Eastern Canada.

During the evening Mrs Johnson served a delightful supper.

Meetings are to be held monthly. At the next gathering it is proposed that some time be set aside for answers to beekeepers' questions by the Apiary Instructor, assisted by members of the Committee.

—R. S. Wait.

NORTH OTAGO

The North Otago Branch plans to hold a field day at the honey-house of Mr R. G. Rawcliffe, Corriedale, on February 14th, 1953, and will be glad to welcome visitors from other districts.

OTAGO

A full report of the Dominion Conference was received from Mr J. Glynn, and this provided a topic for discussion at the August meeting. Members expressed appreciation of the conscientious manner in which Mr Glynn had performed his duties as delegate for the branch.

The speaker for the evening was Mr J. S. Horn, who dealt with a number of devices and ideas for saving labour in apiary work. The usual free-for-all debate followed and some useful tips came to light. Query: How much energy is wasted in New Zealand each year (a) lifting boulders on to hive roofs and (b) separating heavy supers by means of a flimsy hive tool?

SOUTHLAND

A film evening was held in August. While the attendance was not all that might reasonably have been expected, those present saw two films, "Nectar" and "The Realm of the Honey-bee," of great interest. The photography was first class. Our thanks are due to the Apiary Instructor, Mr Line, for securing the material, and his departmental collegue, Mr Bush, who acted as projectionist. A light supper was served.

Mr N. Glass, of Gore Branch, gave a report on Conference in September to a fair attendance of members, and our thanks are due to him for giving us a first-hand account of the doings in Auckland.

Field Day: January 17th, at the apiary of Mr Barber, Hedgehope.

—J. W. Fraser.

NOTES FOR BEGINNERS.

By "SKEP"

Summer is here.

Are we ready to harvest a good crop of honey?

Preparation for the Flow

The last eight months should have been spent in wise and efficient preparation for the coming honey flow.

FEBRUARY-APRIL. — Requeening; taking off all honey; removing surplus equipment; checking up honey stores in hives (at least 30lbs. or four solid combs of honey); watching for disease; replacing deteriorating supers, top and bottom boards; digging away grass around hives, etc.

MAY-AUGUST.—Overhauling, repairing, painting and storing equipment; making new plant; studying bees, beekeeping and honey production; and (very important) taking a good holiday.

SEPTEMBER-NOVEMBER.—Producing (i.e., rearing) brood and bees in enormous quantities, but in a strictly regulated though ever-increasing pace until mid-December. (If anything — poor laying, swarming, starvation—interferes with this increase the beekeeper is entirely and personally to blame. He will get his just reward—a poor crop.)

DECEMBER-FEBRUARY. — The reaping of the harvest. Are there over or under 30,000 bees in each hive? Sixty thousand is a good working force (they weigh 5000 to the pound), and such a colony in a reasonable honey-producing district and in medium weather would gather 800lbs of honey, of which 600lbs (approx.) would be used in rearing the hive population. Each comb of brood reared means the consumption of one comb of honey. Each comb has approximately 4000 worker cells (counting both sides).

"Stingy" Beekeepers

Stingy or miserly beekeepers defeat their object of a crop by leaving too little stores on the hives in the autumn—unless they are efficient and keep a large quantity of stores in the honey house and feed it to the colonies as it is required by the bees.

A colony with under 30,000 bees decreases in crop as the number falls. It is easy to understand that a colony that swarms early cannot store a surplus of any value. Therefore, an early swarm (before the full flow) takes the beekeeper's honey income with it.

Union is Strength

For the next few weeks, as soon as a swarm has come off a colony, it should be returned after cutting out all queen cells, taking away the honey, giving empty storage combs, and, if possible, requeening the hive (the great remedy for swarming is spring requeening).

If the swarm is lost cut out all cells in the deserted hive. Choose a fairly strong colony and, that evening, when the bees are home, unite the deserted, swarmed colony to the selected one—*on top* of one sheet of paper. This is efficiency. It means converting the small, useless lot of bees and the equipment of the swarmed colony into full use by ADDITION to a strong, honey-gathering colony.

Good Workmanship Required

A poor workman makes a poor beekeeper. A slovenly, careless, or dirty worker has a "honey-house slum" or/and apiary slums. The Apiary Instructors are doing their best to change such conditions by instruction, encouragement, and even personal assistance.

A few marks of efficiency are:—

(a) A tidy, spotlessly clean honey house or room.

(b) First-class hives, including good supers with galvanised nails; Hoffman self-spacing frames; full sheets of the best foundation (eight sheets to the pound will do); good wiring; waterproof hive tops; non-decayable bottom boards; good worker

combs (drone combs are as useful for the bees to store honey in if placed above queen excluders).

(c) A neat apiary with painted, waterproof beeproof hives.

(d) Grass and weeds skimmed neatly away from around the hives and entrances. (I have seen hives of two storeys completely covered by tall grass; the bees climbing up and down about two feet of grass stalks. The insides of those hives were a disgrace.

(e) Storage room given to the bees as it was wisely required; but not more than is necessary in view of the strength of the colony. (I have seen colonies wintered in six storeys. One apiary I inspected as a part-time inspector had five or six-storey hives. The bees were in small, miserable, cold bunches, with mildewed and fermented combs and uncleanness everywhere. There were only three patchy combs of brood, instead of the seven or eight good combs of healthy brood that well-cared-for colonies had at the time. The bees in the skyscrapers were hopeless and depressed. instead of humming with life and being the proverbial "hives of industry" and enthusiasm.

Co-operate With the Bees

(f) How much do you know of the hive community? Of their reactions, of their instincts, of their dislikes and their likes, of their laws and rules, of their fears and terrors?

I know some newcomers in the industry who have only one idea—just a big crop of honey, which means money to them. A few do not even know the simplest facts about the life in the hive, and the physical nervous make-up or the bodily structure of the bee. They may learn slowly; but meanwhile they make a lot of trouble on the local market, and by uninformed condemnation of the beekeepers' marketing organisation.

All beekeepers living convenient to a beekeepers' organisation should join up. The sacrifice of travelling several miles to a meeting of the branch would be well rewarded by association with other and more experienced beekeepers. The talks and demonstrations all leave their impressions and add to a store of sound information in the member's mind. He can then ask relevant and intelligent questions and gain the other members' respect and friendship by reasonableness and wisdom (book study helps a lot).

Put Brood in Bottom Storey

(g) It is bad workmanship to leave the bees a six-storey house to care for and warm up, when a single, cosy storey would suffice. The queen will not lay unless the temperature is correct inside the hive. Where several empty storeys are on top of the hive, the bottom one is draughty, cold and dreary. The queen follows the warm air upstairs to obtain the required temperature for breeding. Below all is neglect and decay.

As nectar comes in, the bees place it above the brood. Sooner or later this forces the queen down a storey; but it is too late and the crop in that neglected hive is greatly reduced. Where queen-excluders are not used the process is to put the ten largest frames of brood down in the bottom storey, any further brood in the middle of the second storey, good worker combs on each side of the brood in the second storey. In the third storey combs of honey or pollen should be placed in the centre to act as a barrier to the queen going further up.

This process should be carried out each month before the flow. Any supers in excess of the three should be taken away and not given until the third storey is two-thirds full. When the flow is strong additional storeys may be put on top one at a time when the bees have honey in six frames in the top storey.

Taking Off the Crop

(h) There are three methods of taking honey off the hives:

(1) Brushing bees off single combs of honey;

(2) Using bee escapes put on the day before, underneath supers of honey.

(3) The use of liquid carbolic.

Brushing bees is quite sufficient where the beekeeper has only a couple or so of colonies. A light, hair bannister brush is suitable. Thick ones

get heavy and sticky with honey. Proper brushes of hair can be bought.

Bee escapes are used universally by beekeepers as the best method. However, unless the top on the hive and the supers on top of the bee escape are bee-tight, the honey will be robbed. A sheet of newspapers under the hive top, and wet, squashed newspaper pressed in will fill up any hole temporarily.

The third method is illegal. Carbolic is a deadly poison. Tar-based products may mean death to healthy life. Carbolic is used by one or two older beekeepers and by a number of newcomers to the industry.

I tried this method once years ago, when Mr T. S. Winter was the Government Grader. Although I was most careful and sparing in the use of this poison, Mr Winter detected it in the honey. He sent a sample to be analysed in Wellington. Traces were found, the honey was condemned, and I was warned. As I agreed with this, I did not again use carbolic.

Honey is the most attractive of health-giving foods. It is a pure, untouched article when in its natural state as prepared by the bees. To add a poison to it would be a crime to humanity.

Proper Pride in Honey Product

Honey is not only a choice food (known ever since records were made by man), but it has a splendid health value. The Bible has numerous mentions of it as amongst the most precious things, with a high symbolic meaning.

There is a real value to man in having honey in his diet. It has also a romantic appeal, owing to its being gathered from flowers in the fields; and the occupation of a beekeeper—in the open air, in the sunshine, braving stings, yet keenly interested in the life and doings of the industrious, ingenious bee—appeals to people of independent natures who have the desire to develop their individual and personal side of life in the midst of nature's wonders.

Let us all express this pride by producing a "super" honey, by keeping it free from any sort of contamination or adulteration, by packing it attractively and worthily, and by organising its marketing (individually and collectively) upon lines of purity, artisticness and dignity.

(Editor's Note: We place on record our sincere thanks to "Skep" for the fine series of articles which comes to a close with the above contribution. The time and thought which have been devoted to the task, by one of our busiest commercial beekeepers, are much appreciated. Notes for Beginners will be continued by a new "Skep" in our next issue.)

WORLD NEWS

Australia

Honey producers in Australia depend on trees for their main sources of nectar and much attention is given to forecasting the yields from different species so that the bees can be taken to the most profitable sites.

In recent issues of the Australian journals an advertiser claims to have discovered the secret of nectar secretion and offers to give advice to a limited number of clients for a fee of 100 guineas each per annum.

New York

Mr Andre Prost of New York operates an agency for foreign and domestic food specialties and honeys, and from many different sources are among the lines which he distributes to department stores, delicacy shops and health food centres. The extent to which he specialises in the sale of honeys from here, there, and everywhere may be judged from the fact that in addition to carrying about 70 different honeys from the United States he imports regularly from 19 other countries.

In one of his small leaflets Mr Prost features heather honey from "historic Buckfast Abbey, peacefully situated in a beautiful valley surrounded by undulating hills, where to-day Benedictine Monks farm lands which in former times belonged to the Abbey for a thousand years." Listen to this:

Dartmoor Heather Honey

Truly one of the richest honeys known to the world. What a boon this red-

brown honey, thick and gelatinous in nature, is to those who love the tang of the moorland air, and the scent of the heather!

Here we see the value of a few well chosen words in presenting the credentials of a particular honey. On reading the above description the average New Zealander might hurry out to buy a pot of manuka honey. And if the honey he bought were nicely prepared he would have no cause for disappointment.

GADGETS AND IDEAS

Keeping Mated Queens

[Reprinted from the Bee Research Association's Apicultural Abstracts (No. 130/52 in "Bee World"). The author of the article is T. R. Jevtic, Yugoslavia.]

The keeping of reserve queens is discussed in the light of experiments made in Eastern European countries. The cage devised by the author in collaboration with Prof. B. Vlatkovic (illustrated) is 60 x 60 x 26 mm.; the front is made of queen-excluder sheet, over which a metal slide can be inserted. Cages containing queens are put into the super of a strong colony (above a queen excluder) with the metal slides in place. These are removed after three days, and later even the hive queen excluder can be taken away. When the hive is opened, several workers (5-6 mentioned when there were 17 queens in the hive) are found in each cage, and it is said that they continue to look after the queens however many there are.

It is therefore possible to keep reasonably large numbers of reserve mated queens throughout the season, in normal colonies, and without impairing their subsequent fertility.—W. Yuill.

HOLDING A QUEEN BEE

As the years pass over our heads, our hands become more shaky. Perhaps it is this that makes us chary about holding a queen for the purpose of marking her or clipping her wing. Or perhaps there is a lot of truth in the old saying that "Practice makes perfection" and the average beekeeper never has sufficient experience of these operations to become fully proficient. There is not much danger of damage if the queen is held *properly* by the thorax. I read an excellent American book on queen rearing the other day and the authors recommended a method which is really good. It is advised that the queen should be held by two of the legs on one side. In this way she is held safely and firmly and there is no fear of her twisting and pulling a leg off—an occurrence that happens frequently when she is held by the one leg.—C. L. Bruce in "The Scottish Beekeeper."

ROTORUA FARMLANDS

For some reason or another, very little seems known of the gigantic strides made in development and settlement of Crown land in the Rotorua district. In this developmental work the Lands Department has made such a fine job of things that the speed of this colossal task has actually far outstripped all the other amenities ultimately necessary for ideal settlement, such as power, roads, phones, doctors and supply facilities. A great amount of the Department's work has been unhonoured and unsung.

The main blocks in the Rotorua area are, in approximate acreage: Galatea, 25,000; Mihi, 41,000; Waikite, 23,900; Rotomahana, 12,800; Waiotapu, 8600; Ruaiti, 22,000; Rerewhataitu, 28,000.

From observation and culling of information, the following statistics will give some little idea of the big-time development planned and already undertaken. Whilst not officially confirmed, these figures can be taken as approximately correct.

The area already under grass is around 150,000 acres. It would seem that each year for the next ten years 20,000 to 25,000 acres will be broken in, to settle about 100 farmers annually. The department has a holding area of about 50,000 to 60,000 acres. Stock wintered by the Crown is assessed at 100,000 sheep, 20,000

run cattle and 5000 dairy heifers.

In 1949 there were 17 new farmers settled. In 1951 this was stepped up to 77. For this year, 1952, there will be 100, and next year probably a shade over the hundred.

Programme budget figures for 1952-53 are interesting, for example: 300 miles of seven-wire boundary fencing; 100 miles of three-wire subdivisional fencing; 1700 gates, and nearly 100 miles of roading, including farm roading; 25 full houses and 64 half-houses; 119 implement sheds, and 71 cowsheds. In the spring it is estimated that 9600 acres will be sown in grass, and 12,490 in the autumn.

A great deal of topdressing is done by air, using a de Havilland carrying a load of 15cwt. Once in three years, it is considered that the cobaltised super will be spread.

The average size of a holding is about 120 acres. Up to date, the vast majority are dairy units, some mixed, and a few sheep. Future indications, however, point to considerably more sheep properties. At present, all dairy produce is processed by the New Zealand Dairy Co. at their Ngongataha factory. There does seem need for a factory somewhere between Taupo and Rotorua, say at Golden Springs.—"Straight Furrow."

SUCCESS WITH BEES

By Ti-Tree Tony

In this article my aim is to discover how successful you are in your chosen vocation. Incidentally I may tell you how to achieve success in case it has eluded you this far, so the thing should be well worth reading.

First and foremost, do you find pleasure in your work? The acid test is whether you get a kick out of lighting the smoker again after a week at Taupo.

I once knew a lifeless fellow who dragged himself from hive to hive and had barely enough interest to mend a torn bee-veil. One day a bunch of rowdy steers clambered into his property, turned the outfit upside down, and departed. In the circumstances he renewed the front fence and road entrance, and, pleased with the result, he next marked out the drive-in with a number of large stones, neatly whitewashed, then planted a weeping willow inside the gate. That did it. The man seemed to catch fire and in no time there was a colour scheme in the honey house and roses round the door. Nowadays he is so keen on his bees you can hardly lure him away to the bowling green on a Saturday afternoon.

On the other hand there are beekeepers with energy and diligence to the nth degree but they have left off whistling at their work for a different reason. Work is so pressing and time so short and the elements so perverse and the bees so crabby they just can't keep their heads above water. Every outyard needs attention and on arrival you are checkmated by the heap of work that should have been done last time. Eventually you get your bearings and pitch into it and you grab a mouthful of lunch about 2 o'clock. Then crack on the pace a bit more, the bees get madder and madder, and at the end it's a relief to slam the lid on the last hive and make for the cab of the truck. The same thing again to-morrow; the weather forecast is bad and you are a week behind schedule.

There is a solution to this problem. First, for goodness sake get some gentle bees. You will never co-operate with those mean sorts that spring to arms and fix bayonets when they see you come in the gate. Second, sit down and get organised. Cut out those unnecessary operations and simpilfy the essential ones; keep your gear right and keep your bees right but don't harass them too much. Third, never work at more than three-quarter pace. This puts you in a serene frame of mind and you can keep one move ahead of the bees so the situation is under perfect control.

If the above measures don't help, especially the last one, then your outfit is too big for your labour force and you know what to do. By the way, step back and take a look at yourself, a 12-stone unit of humanity wound up to go for seventy years. Where do you expect to get by grinding yourself to pieces with an overweight load? Very likely you will stall the machinery some time, and

once it has stopped, my friend, there is no way of starting it again.

We now come to the second question. Are you turning out a good product? I can take it for granted there is a problem in your locality. Every district has its headaches so don't sigh for those green fields in the distance but tackle the situation you know something about. Choose your locations carefully; I don't mean seize all the best sites in the county but help your bees to show good results by placing them to the best advantage in your own district.

We are told that many commercial units are too large and should be reduced in size to get efficiency. The idea is good but here is the other side. We all know the beekeeper who greedily packs his honey into the most profitable containers and when the season is finished he begins to look around, not to sell his honey but to quit the stuff. There are many good beekeepers who should confine their efforts to production and there is much good honey which should be reserved for blending. What I am trying to say is that some units should be increased a little in size and geared to make bulk honey. This is a matter which you must work out for yourself. It is a great feeling when your honey is loaded out of the honey house to know it is the best you and your bees can produce and it is going to the right destination.

My third question is an interesting one: do you have some spare time? There is no place in this life for loafing around but now that you have made your contribution to society do you have time to reap the reward? To explore the wonders of the universe, and the treasure house of literature, music and art which is your heritage, to know your neighbours at work and at play, and to leave the world a little the better for your having lived in it. Life can be brimming full for those who have time to live.

One more question. How fast is your financial backlog accumulating year by year? Possibly you think that at last I have come to a real pertinent point. Think again, brother. As a matter of fact I don't require you to answer this question because it is a matter of no consequence.

"Wait a minute," I hear you say, "what about the rainy day theory? Besides, I have children who should be provided for."

My answer is that there are a hundred and one fearful possibilities which could bring disaster overnight and against which the utmost precautions would be useless. But they never happen. Certainly there is a degree of prudence you should observe if only as a duty to your fellow men, but show your trust in providence by taking not too much thought for the morrow. As for the children, it is better to let them fight their own battles. Try to give them a healthy mind in a healthy body, nothing more, and they will find the whole world lying at their feet.

GOOD BEE COMBS

When foundation combs are being drawn by the bees the frames should be spaced not further apart than 1⅜in. from centre to centre. With Hoffman self-spacing frames this spacing is achieved automatically provided 10 frames are placed in each super. This spacing is important, as in nature it appears that 1⅜in. is the average for worker cell comb and 1½in. for drone comb. Where 1⅜in. spacing is provided the bees are then encouraged to build more drone comb than they would if the spacing was 1⅜in. Moreover, if the spacing is excessive, the bees will build additional brace combs between the frames of foundation.

It is a good practice once the 10 combs have been drawn to remove one of them and use only 9 combs in each super. This is not only an economy in the number of combs required for each hive, but facilitates brood manipulations. In honey storage supers it also results in the bees making thicker combs, which hold more honey and are very much easier to uncap for extraction.

When possible foundation comb should be placed in supers above brood nest, as the bees are then more likely to build each comb fully from one end bar to the other and from top to bottom bar. On the other hand, if

foundation frames are placed in the brood nest, the bees are liable to finish the combs short of the side and bottom bars. Such combs have very little strength and invariably break when placed in the honey extractors.

Imperfect combs are not unusual, even though they may have been properly reinforced and drawn under favourable conditions. Each year 5 to 10 per cent. of the newly drawn combs can be culled and profitably replaced. In many of the older-established hives where culling is not seriously practised as many as 50 per cent. of the combs could be culled to advantage. Apart from the drone combs such hives may also contain some damaged, pollen-clogged, and otherwise irregular combs.

Some beekeepers are reluctant to dispose of their poorer combs after their removal from the brood nest and instead use them in the honey storage supers. This is a very short-sighted policy, as such combs eventually get back into the brood nest in spite of the beekeeper's best intentions. Combs which can rightly be regarded as culls should be rendered into beeswax. With this policy there is no loss to the beekeeper, as each comb is capable of yielding about twice the quantity of beeswax required for a sheet of comb foundation.

Consistent culling from year to year will subsequently reduce the number of poor combs which have to be culled annually. This practice contributes in large measure to a beekeeper's success, as it results in an over-all increase in both storage space and worker bees which gather the crop.—

From an article by E. Smellie in "N.Z. Journal of Agriculture."

HONEY IS FOOD

A RADIO ADDRESS FROM 2ZA BY MISS KAY BEGG.

Until a few generations ago, when sugar came into world-wide use at a low price, honey was the principal sweet food available in the Temperate Zone of the world. And although it has slipped a bit, it still holds an important place in our diet, probably because of its distinctive flavour.

You may have wondered at times why honey varies so much in texture and in colouring, and there is a very simple reason for that. Since honey takes its flavour from flowers, it varies with the kinds of flowers from which the bees gather nectar, and although there are lots of colour classifications for honey, like White, Amber, Dark and so on, the actual goodness of the honey has nothing whatever to do with the various colours. You tell the quality of honey by its freedom from foreign matter.

When we buy honey we sometimes find that it crystallises and alters in texture. If you do have that trouble, remember that unless it is in a tightly sealed container, honey should be stored in a dry place; otherwise it is likely to absorb moisture and ferment. Honey can be kept almost indefinitely, if you keep it tightly covered at ordinary room temperature. If it is sealed, you can keep it in a refrigerator, although the low temperature there might cause the honey to get cloudy or partly crystallised. With a very few exceptions, all honeys crystallise as they age—it is something you cannot very well prevent. But when you find the honey has crystallised like this, you can easily liquefy it by warming the container in moderately hot water . . . but not water any hotter than 140 degrees Fahrenheit . . . . higher temperatures than this injure both the flavour and the colour of honey.

Like all other sweets, honey is an energy-producing food. Its chemical composition varies a great deal, but you can count on the average jar of honey being about three-fourths sugar with small quantities of minerals, like iron, calcium and phosphorus, though there are not enough of these to make honey an important source of minerals in your diet. Various studies of honey have been made in an endeavour to find out if it contains vitamins, and the concensus of opinion seems to be that it does not have any appreciable vitamin content.

One of the good things about honey is that it yields more energy than sugar. And there is another most important reason for keeping honey in your mind's eye (so to speak) and that is the fact that honey, being composed so largely of simple sugars, is assimilated easily by the body. We give invalids easily assimilated foods like glucose, and in the same way, if we eat honey, then we are giving our bodies a source of food that can be absorbed without much effort on the part of our overworked bodies.

There are many more ways of using honey than most people imagine, both cooked and uncooked, and as honey is at its best uncooked, with the lovely natural flavour and colour unchanged, I am going to give you some ideas for using it. You know already about using honey as a spread on bread and toast, but don't forget it can go on girdle scones and other scone-mixtures, too; if you warm your honey slightly and pour it over fruits and cereals, you will find it popular, and you can use it (with or without nuts) as a sauce for ice cream. As for sandwich fillings . . . have you ever thought of making honey butter? Honey butter consists of equal parts of honey and butter creamed together, with or without nuts; or with grated orange peel. Honey with chopped dried fruits (again with or without nuts) goes well in sandwiches; so does honey with either cream or cottage cheese; also honey with chopped or grated orange peel, and honey mixed with peanut butter too, is delicious in a sandwich. And just as a final notion, how about a honey and orange sauce for your ice cream? For this delicious ice cream sauce you will need a cup of honey; one and a quarter cups of finely chopped or grated fresh orange peel; half a cup of orange juice and an eighth of a teaspoon of salt. Just combine all these ingredients and let the mixture stand over hot water (without cooking) for about thirty minutes to blend the different flavours. And that makes a very nice, very unusual addition

to your ice cream dishes, as well as being another way of eating that valuable food—honey.

THE FIRE RISK

It is amazing the number of ways a fire can be started and a few preventive suggestions may help the reader in saving his buildings from this very common tragedy. Did you know that a jar or glass jug empty or full of water can start a really hot blaze in short order?

I have a neighbour who carried a glass gallon jug of water along with some tools in the cab of his truck. The truck is an old model and the water is carried along to refill the radiator when it gets hot out in the hills. He usually keeps the glass jug covered with a burlap bag. But twice in the past eight months the jug became uncovered and the sun's rays focusing through the jug on to some greasy burlap in the tool box started fires that would have burned up the truck had a neighbour not seen the blaze in time and doused it with a garden hose.

So remember not to leave any glass containers near a window in your honey house. And be sure your fuse in your master switch box is no stronger than is actually needed. Remember, the chief purpose of a fuse is to break when trouble comes and not to stay intact and permit the building to burn down.

The smaller the fuse, as long as it can carry the normal load being used, the better off you are. Now I turn off the master switch in the honey house when it is locked up. Just a few months ago a refrigerator in our store went haywire during the night and the store undoubtedly would have burned to the ground had not the 20 amp fuse blown. The motor and wires in the refrigerator were burned beyond repair.

Do you keep oily rags in your honey house for smoker fuel? Oily rags have burned many a building down. Yet, I have seen oily rags stored in honey houses for smoker fuel. And do you plug the nozzle of your smoker when you have finished working a bee yard, instead of emptying the burning contents and thoroughly extinguishing all sparks? I used to do this. On one occasion a passing motorist informed me that the stiff breeze and the joggle of the truck had dislodged the piece of burlap in the nozzle and the smoker was throwing out a heavy smoke and some sparks. Wasn't far from the gasoline tank, either.

It is only human to err but the beekeeper who puts fire prevention high on the priority list of work to be done and is covered with adequate fire insurance on his buildings and home can rest assured that he stands a very good chance of escaping the loss of several years' work in say two hours when a fire breaks out and hungrily consumes your dearest possession—your honey house.

—C. Tonz in "Modern Beekeeping."

SOME SUGGESTIONS.

The following advice is given to local Associations by Gleanings in Bee Culture:—

Here are a few suggestions that have actually been tried out:—

1. Enlist the help of young beekeepers. Youth is needed for action.
2. Serve refreshments at meetings.
3. Show personal interest in the problems of individual beekeepers.
4. Make beekeepers think they will actually get something in return for joining.
5. Co-operate with county agricultural agent and extension man and have them present at meetings if possible.
6. Offer to provide speakers for service clubs, garden clubs, etc.
7. Encourage displays of beekeeping gadgets and offer prizes for the best.
8. Obtain movie films or slides for use at meetings.

The Lackawanna County Beekeepers' Association staged a bee hunt recently and elicited the interest of newspapermen and photographers who were on hand during the hunt for a bee tree, which was found, the tree cut down, the section containing bees and honey opened, and the

delicious honey sampled by most of the people who followed through on the project.

Needless to say, many people were made wiser about honey bees and honey. In fact, most of the people who tasted the honey had some of it dribbling down the fronts of their clothing, and interestingly enough, no one was stung.

There is no human yardstick that will measure the amount of good accomplished, not only for this county association but also the entire community which definitely becomes more bee and honey minded.

In New Zealand we may not have a Branch with a name like Lackawanna, but still we should be able to think up something out of the ordinary.

BEEKEEPING IN AUSTRALIA

"THE AUSTRALASIAN BEEKEEPER"

Illustrated Monthly Magazine, published by Messrs. Pender Bros. Pty., Ltd.

Subscription 15/- per year, posted. Sample copy free on application to—The Editor, P.O. Box 20, West Maitland, N.S.W., Australia.

HIVE MATS

Cloth for hive mats is available in lengths of 70 yards by a width of 20 inches, the price being 1/3 per running yard, nett, f.o.r., Foxton.

For an extra charge of 7/6 per roll, the cloth will be cut into any lengths desired.

Orders for quantities of not less than one roll, accompanied by cash, should be sent to the General Secretary, P.O. Box 19, Foxton.

"GLEANINGS IN BEE CULTURE"

A 64-page monthly Bee Magazine, generously illustrated, featuring timely articles on beekeeping practices in the U.S. Rates: One year, $2.50; two years, $4.50; three years, $6.50. Sample copy on request.—The A. I. Root Co., Medina, Ohio.

THE NATIONAL BEEKEEPERS' ASSOCIATION.

SUBSCRIPTIONS:

Up to 30 colonies	£0 7 6	(minimum)
Up to 60 colonies	0 10 0	
Up to 90 colonies	0 15 0	
Up to 120 colonies	1 0 0	
Up to 150 colonies	1 5 0	
Up to 180 colonies	1 10 0	
Up to 210 colonies	1 15 0	
Up to 240 colonies	2 0 0	
Up to 270 colonies	2 5 0	
Up to 300 colonies	2 10 0	
Up to 330 colonies	2 15 0	
Up to 360 colonies	3 0 0	
Up to 390 colonies	3 5 0	
Up to 420 colonies	3 10 0	
Up to 450 colonies & over	3 15 0	(maximum)

An Associate Member shall pay 5/- per annum.

APIARY INSURANCE.

Arranged by the Association and available to all members.

PREMIUM: 1/3 per apiary per annum.

(Insurance is voluntary, but if taken, all of a member's apiaries must be covered.)

JOIN YOUR NEAREST BRANCH AND DERIVE FULL BENEFITS.

"THE N.Z. BEEKEEPER"

This Journal is issued to members of the National Beekeepers' Association of N.Z. (Inc.) on payment of a Journal Fee of 3/- per annum. Failure to renew subscriptions promptly results in automatic removal of names from Journal Mailing List.

Literary contributions and advertisements must be in the hands of the Editor, Mr. J. McFadzien, 29 Nottingham Crescent, Calton Hill, Dunedin, S.W.1, not later than the first of month of publication.

Nom-de-plume letters must be signed by the writer and address given, not necessarily for publication, but as proof of good faith. Letters accepted for publication do not necessarily express the views of the Editor.

ADVERTISEMENT RATES

£6 per page; £3/6/- per half-page; £1/16/- per quarter-page; 10/- per inch; for each insertion. Minimum charge, 5/-.

CONTENTS

Beynon Printing Co. Ltd., Timaru.