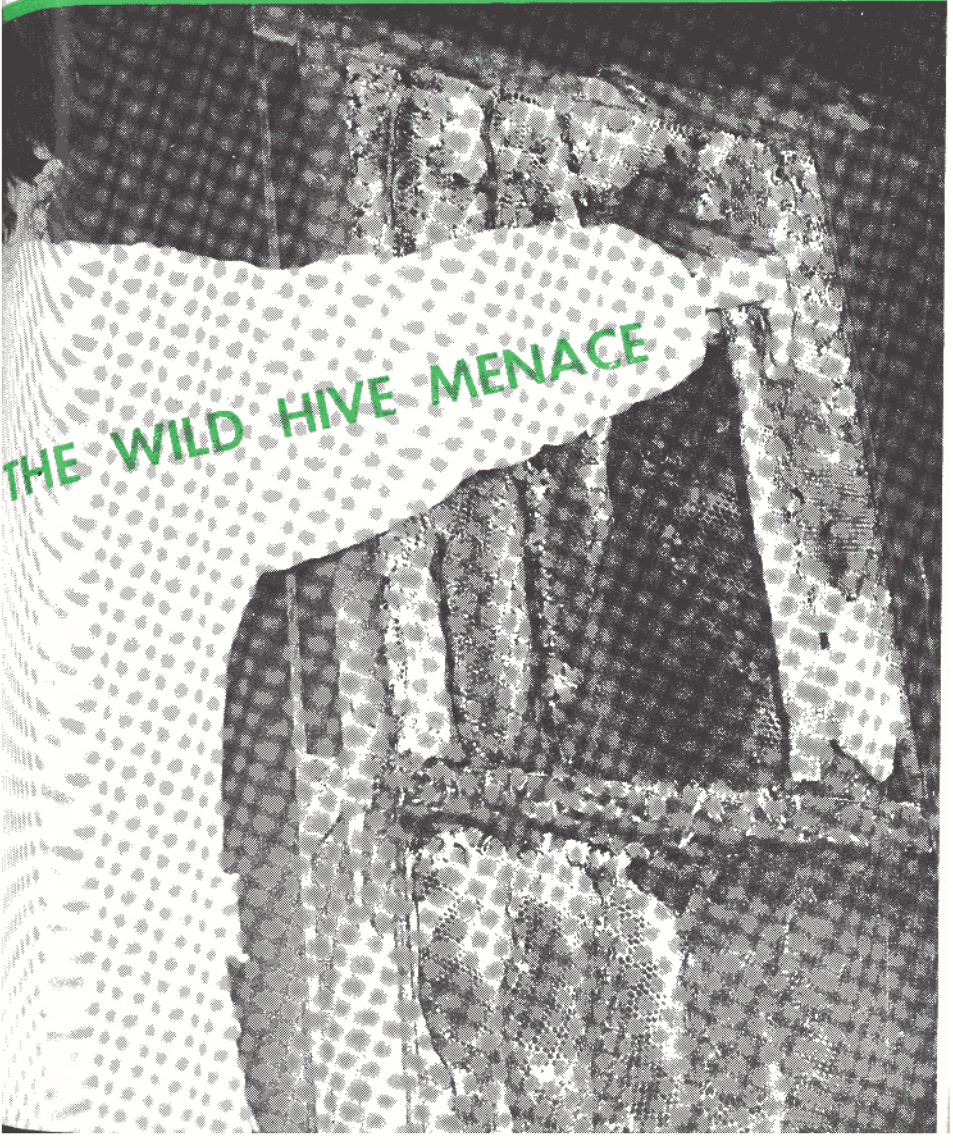
THE NEW ZEALAND

BEEKEEPER

FEBRUARY, 1972



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CONTENTS

Area reports from apiary instructors in various parts of the country indicate that honey crops will average this season, although with eternal optimism characteristic of the fraternity the hope for a last minute yield is freely expressed.

Optimism is commendable and a necessary trait to remain a beekeeper, but in most circumstances empty supers now will remain empty until next season and it is too late for wishful thinking.

Plans for a new car or boat will have to wait.

Caucus Committee Report

It is disappointing that the eagerly awaited report by the Caucus Committee is not yet ready for publication, and there is much conjecture as to recommendations to be made to assist the industry attain a more stable basis of operation.

That there is room for improvement there can be no possible doubt, and the considered opinions of outsiders looking in will be of the utmost value to the industry.

Illegal Importations

Evidence has been given to the authorities of flagrant importations of queen bees smuggled through the air mail postal service.

The name of the illicit importer is known, as is the name of the exporter, how the queens were sent and the date when the queens were sent, and how much was paid for them.

Preliminary evidence was submitted in October last, and at the time of writing no word has been received from the law officers that a prosecution will ensue.

When evidence is available and can be substantiated, it is hoped that the Department of Agriculture will lend their fullest support to see that justice is done. The irresponsible actions of one man in defying authority can jeopardise the whole industry and the livelihood of everyone concerned.

HONEY CROP PROSPECTS: SEASON 1971/72

Summaries of reports from apiary instructors on seasonal conditions and honey crop prospects as at mid-January to the Superintendent, Beekeeping, Department of Agriculture, Wellington.

NORTHLAND

Unsettled cool weather during October and November resulted in reduced bee strength and adversely affected manuka and buttercrop crops. Pollen shortages were a problem in many areas earlier in the spring.

To date good flows of Clover and Lotus major have been recorded in most areas and if weather conditions remain settled then good average crops can be expected from a late flow.

Heavy budding of Towai and Rata is evident in the Far North and hopes are high for a good flow if weather improves.

The quality of the honey gathered has been very high.

AUCKLAND

Continuous cold, wet spring weather conditions gave rise to heavy losses of colonies through starvation this season.

Heavy supplementary feeding was carried out by several beekeepers up until the end of October — however with a heavy Manuka flowering this problem was quickly rectified and strong colonies soon collected a good surplus.

Heavy flowering of Pohutukawas in December was reported in many areas and good crops were gathered — however cloudy cool temperatures over the last three weeks have slowed down the nectar secretion of pasture flowers.

The present strength of most hives and the heavy flowering of Clover and other pasture sources could result in above average crops being gathered if hot weather prevails over the next three weeks.

WAIKATO

The winter was exceptionally mild and colonies remained active with brood rearing at all times. Hives were very strong and short of stores by early August. Early in the Spring, weather changed to very wet with strong winds. These conditions prevailed through to November making heavy supplementary sugar feeding necessary to keep hives alive.

December weather was sunny and warm. Clover and other pasture weeds flowered freely and good yields were obtained from these sources. Yields from Towai and Rewa Rewa were poor. Weather in early January reverted to heavy rains, strong winds and cooler temperatures.

Pastures remain in good condition and with favourable weather during the next few weeks, honey will be average, in some areas above average crops should be gathered.

The winter was a particularly mild one and spring came early; however the usual settled spring weather during August did not eventuate, unsettled conditions with wind and rain (22 inches above average for the Tauranga district) have prevailed most of the spring and early summer months. Hive strength in the early part of the season was not good and heavy feeding of syrup has been carried out in most places.

Bush sources of nectar have not produced very well particularly Rewa Rewa, Kamahi and Towai. Barberry was also very poor.

Pasture sources are in excellent condition, particularly clover and if warm settled weather is experienced during January some good crops of clover could be secured.

CROP PROSPECTS:

At the present time, below average crops from the high country with average crops in sight from the pasture areas with a strong possibility of securing above average crops from these latter areas subject to good weather.

HASTINGS

Hawkes Bay - Poverty Bay beekeepers have been experiencing what could be considered the ideal honey producing season. Although the spring months were a little on the wet side, the weather improved during December, and has remained reasonably settled apart from occasional showers.

There has been a good yield of nectar from Manuka and the clover flower has been evident in most pastures throughout the district. This has also yielded well and if weather conditions remain settled, the season could result in producing the bumper crop that most beekeepers look for at least once in their lifetime.

PALMERSTON NORTH

Winter and early spring conditions were mild and many colonies came into the spring light in stores. During September, weather conditions broke with rain and high winds continuing to the end of October.

Very little nectar was gathered from willows and other early nectar sources and heavy supplementary feeding was required.

Conditions improved in November with ample rain falling during the month. There was some early swarming in most districts.

During December, pasture and bush sources yielded well with strong colonies storing a super or more of honey. Because of drought conditions last year in the Wairarapa there is a large amount of thistles in this district which could be a good nectar source.

Conditions during the first half of January have been broken with winds and scattered showers. Pastures in most areas are good with clover and other nectar sources flowering freely.

Given favourable climatic conditions during the next few weeks an above average crop of good grade honey should be gathered.

HAWERA DISTRICT

Conditions were quite favourable during the spring and early summer months for beekeeping in most areas of the district. With a rainfall that was highest for a number of years, growth in pastures were quite prolific, with a great show of field flower and clover. Native sources such as Towai also flowered well and crops of honey in payable quantities was on many hives prior to Christmas.

With an unsettled period of weather since, only a light steady flow has eventuated, but with a fine break of weather in the near future a quite steady flow of nectar could still be forthcoming. This will be due to the excessive amount of field flower and clover still being prominent in the pastures.

An average crop is assured in most areas and could even be exceeded if the above conditions prevail.

NELSON

All districts experienced a fine mild winter and hives entered the spring in good condition, but dull overcast weather with cold winds have prevailed during the late spring and early summer and bees have not been able to take full advantage of nectar sources available.

In the West Cost areas Kamahi and Hinau flowered well. Lotus Major, blackberry and pasture sources are flowering with Rata vine starting to show. With continued good weather an average crop can be expected to be harvested.

Northern Rata is flowering in Golden Bay and Buller from Karamea to the coastal strip north of Barrytown. South of Barrytown to Franz Joseph only the odd tree is flowering and no rata will be harvested this year.

Nelson districts have had the best flowering of Manuka for several years, also a good flowering of clovers and other pasture sources. An average to good crop is expected.

In Marlborough there was a good flowering of Manuka, Vipers Bugloss, clovers and other pasture sources. Lucerne is beginning to flower and could yield well if good conditions prevail.

With continued good weather Marlborough could harvest a better than average crop.

Extracting is under way and it appears that an average to good crop will be harvested in spite of the overcast weather and cold winds.

CHRISTCHURCH

The winter of 1971 was relatively mild, wet and unsettled, with the late winter (August) being the second warmest August on record.

The spring was warmer, drier and windier than usual, a feature being thunderstorms during August, September and October.

October 27 will be remembered by many as the day of big winds, and much damage occurred to hives throughout the inland areas.

Both November and December were very dry months, and the year ended with rainfall at less than two-thirds normal, 420mm against 639mm. This makes 1971 with 1969 the driest years since 1894, the first year records are available.

In spite of the dry conditions until the beginning of December, the countryside looked good and everybody expected a good season.

In December the countryside burnt off and only heavy lands have yielded any honey. Hives on light lands have not at the time of writing gathered even winter stores.

However, January's 49mm of rain has caused a second flush of clover to appear and it is not too late to get at least an averge crop.

One feature of the season has been the increase in movement of hives to the West Coast areas, not only to collect winter stores but to gather saleable honey.

OAMARU

Spring pasture growth was abundant as a result of heavy rain in June and a relatively calm, mild winter. There was sufficient intermittent rain to connue pasture growth in most areas up to Christmas.

A violent north-west gale on September 11 devastated some apiaries, but detailed reports of damage were not received from beekeepers. However, it appears most of the hives affected were recovered and losses were insufficient to affect the honey crop.

Most early nectar sources yielded fairly well, and pollen was always plentiful. White clover came into flower over the whole district by the end of November and by Christmas thistles, catsear, lucerne, vipers bugloss and sweet clover were also flowering.

Warm, humid conditions in late December produced a heavy flow. There were frequent showers early in January which should prolong the flow if there is a spell of warm weather in late January and early February.

THE HONEYBEE'S SENSE OF HUMOUR

By J. W. Smith

With acknowledgements and thanks to "Bee Craft"

An old hand was giving a lesson to beginners on the use of smoke. After going over the standard text-book procedures he then went on to propound his own personal opinions in the following manner . . . .

"Having carefully observed my bees for some years past, I have come to the conclusion that we know VERY LITTLE about them really! . . . all this tripe we read from the text books and hear from the experts is a lot of 'old propolis'. I think that the honey bee has a peculiar and highly developed sense of humour — it **might** be correct that the bees has eyes in the back of its head, also on top of his, or her, or its head etc . . . Yes, **we know** it can see in the dark, in fog, in fact I am certain that whether you own National or WBC hives it **can even see through the wood** — it doesn't really need that little puff of smoke in the entrance to say 'I'm here again — look out!' for it **knows** you're there, it **saw** you come up the garden path, all mugged up in your funny little suit with veil and gloves along with the party of fellow tormentors of its domain . . .

It watches amused as you fill your smoker with your concoction of smelly paper, old rotten sacking, puff balls and the like. It giggles in its thorax as it observes how cleverly you manipulate to push your helpers (that long haired boy without a veil and that mini-skirted blonde with the low front) to that side of the hive where your evil smelling smoke is drifting — you are away, roof off, cover off, lots of smoke, helpers choke — where has the honey gone? The bees are tickled pink and it is usually about this time that they demonstrate that we also underestimate their knowledge of the human anatomy for while one little comic crawls up a spectator's leg to find a ticklish spot another goes for a brief little flight through the hole in your veil that you did not know was there — meanwhile the party is in full swing down in the brood chamber (this is where the honey is hidden) much gorging of the sweet stuff, one wipes its mandibles with its wax pincers while others in their gaiety twiddle with their antennae and button up their wing hooklets amid much happy buzzing and swigging of the intoxicating nectar.

Now I recommend you to be aware of this delightful sense of humour of the honey bee — use it to advantage when next you want some honey from your bees. Carry on gaily up to your hive, puff your smoke — not at your hives but in the faces of your friends — make 'em choke and listen to the laughter from the hive. Now while your bees are doubled up with palpitating thoraxes and vibrating abdomens, quickly fall flat to the ground creep towards the hive, keeping low under the radar defences of the bees — take a firm hold on to the off side rear leg of your hive and quickly with an outward and upward movement lift . . . this catches them napping. It quickly takes the smile off their faces, as the frames lie spread around the area grab the nearest one out of the brood chamber (this is the one with the honey in) and with a bee line, make a dash for your back door, bolt it, lock it, then quietly go upstairs and holding your frame high in the left hand, tap the bedroom window with your right hand and wave at your friends — particularly the mini-skirted blonde at the top of the apple tree and the long-haired boy practising low flying over your potatoes — you will feel good — and you will have acquired that wonderful feeling — the sense of humour of the honey bee."

A SUBSTITUTE DIET FOR BEES

A news release by the Canadian Department of Agriculture, June 1971

Three Canadian scientists have developed the world's first synthetic aroma capable of attracting honey bees in the same manner as flower pollen.

Their work could pave the way towards the development of a successful pollen-like food for bees, offsetting a growing worldwide pollen shortage.

The synthetic chemical — called actadeca-trans 2, cis-9, cis-12 trienoic acid — was developed after the scientists identified it as one of the key ingredients in natural pollen responsible for attracting honey bees.

The three scientists are Dr Rolf Boch of the Ottawa Research Station and Dr A. N. Starratt of the London Research Institute, both operated by the Canada Department of Agriculture, and Dr C. Y. Hopkins, who recently retired from the National Research Council.

Despite their success in identifying, then synthetically producing the honeybee attractant, problems remain to be solved before their development can be put to practical use. The main stumbling block at this point is the high cost of producing the compound.

"We are hopeful, however, that with advances in chemistry, other researchers may develop more economical methods of producing the synthetic," says Dr Boch.

"In the meantime, we are examining natural pollen to identify other key ingredients that attract honey bees. Perhaps we can find another equally effective chemical which can be produced easily and cheaply."

The bee industry has already developed bee foods that are designed to replace pollen but success has been limited because none of the artificial diets is palatable for honey bees.

"And, if you can't attract honey bees to the substitute, attempts to feed colonics to build or maintain their strength will meet with only limited success," says Dr Boch.

The most common substitute currently on the market has a soybean flour base to provide protein and fats. Brewer's yeast and other additives provide necessary minerals and vitamins.

"But the bees won't touch it unless they are nearing the point of starvation. Beekeepers may have to add about 25 per cent natural pollen to improve its attractiveness," says Dr Boch.

Although honey bees in Canada can usually find enough pollen to survive, the development of modern agriculture in many areas of the world is threatening colonies.

For example, the success of the fruit industry in California and Florida has resulted in vast and solid acreages of fruit trees. To make way for the expanding orchards, producers clear away all competition from other plants.

The result is that honey bees have only one major source of pollen and that source exists for only a very short part of the year.

Besides limiting the period during which pollen is available for honey bees, single-crop farming over a large area also tends to severely reduce the population of other pollinating insects. The use of pesticides also reduces the native insect population.

Because pollination is vital to the success of many crops, there is a growing demand for honey bees which can be moved by the millions by truck.

Beekeeping has become a relatively important business in parts of the United States and other parts of the world, with beekeepers moving their colonies from one farmer's field to another to meet the demand of crop pollination. To provide efficient service, the beekeepers must maintain the strength of their colonies when natural pollens are not available.

"So, although the demand for pollen substitutes is not very large at the moment in Canada, it is significant and growing in other parts of the world, particularly Florida and California in the United States, in Australia and in Europe," says Dr Boch.

"If we can develop an effective and nadians can develop a large and procompetitive attractant. we believe Cafitable world market," he says.

The Canadian scientists have registered their synthetic chemical under Canadian Patents and Development Ltd., the government's patenting agency.

There are a few areas in Canada where honey bees are already required to supplement local pollinating insects, but the demand will probably grow in the future. Two areas are the Annapolis Valley in Nova Scotia and the Okanagan area of British Columbia. These are orchard areas where other crops and fence rows have been cleared away, a number of pesticides are used during the year and the native insect population must be supplemented by colonies of honey bees.

In other areas of Canada, most notably the Prairies, beekeepers import about $1,000,000 worth of honey bees every year for honey production.

Diseases developing during the severe winters in the Prairies would kill most colonies. Beekeepers prefer to clean out their hives in the fall and import a new and healthy population from the southern United States every spring.

"If the beekeepers in the United States can buy an effective pollen substitute, it would significantly improve the vigor of the honey bees our Canadian farmers import every year," says Dr Boch.

In many areas of Canada, honey bees often approach the starvation point in early spring before flowers bloom. In overwintering colonies, young bees begin to hatch in January and require food, yet the colony may have stored little pollen. Because food is scarce between then and May, the young are often under-nourished; some larvae may starve or worker bees may eat them.

A pollen substitute would overcome this problem and colonies would be in top condition when the crucial spring blooms begin and farmers require pollinators.

Viewed from the other side of the coin, honey producers would harvest more honey from colonies in top working condition when the peak spring bloom period arrives.

Although it is doubtful that the first synthetic pollen aroma produced by the three scientists will be a success because it is presently too expensive to produce, the research to date has demonstrated an effective method that can be used to identify key pollen ingredients.

Using this method, the scientists should be able to identify other bee-attracting chemicals in pollen which hopefully will be cheaper to manufacture.

DSIR entomologist D. C. F. Perrott at Nelson marking wasps attracted to a fish bait enables the wasps movements to be traced and to determine their foraging habits.

An article on wasp control in New Zealand was published in the November edition of THE NEW ZEALAND BEEKEEPER. Marking queen bees can be tedious and time consuming; marking wasps a painful occupational hazard.

Wasp control is a hardy annual for a remit to Conference and it is good to know that positive research is taking place to control these insects regarded as pests by beekeepers and picnicers, but as useful scavengers by some sections of the farming community.

Not a Job for the Faint Hearted

PRODUCING SECTION HONEY for EXPORT

By R. S. WALSH former Apicultural Advisory Officer
and G. C. ROPE Government Honey Grader, Auckland

Producing good section honey is a challenging occupation. The work is exacting and requires an intimate knowledge of bee behaviour, the principal honey plants of the district and the fundamental governing nectar secretion. Success is influenced by three factors of equal importance.

1. Location and the immediate proximity of abundant suitable major nectar sources.

2. Seasonal conditions.

3. The knowledge of the beekeeper,

his efficiency at oragnising his work and his ability to manipulate his bees and equipment to exploit prevailing local conditions.

Choice section honey cannot be produced with poor equipment as too small a portion of the crop would fetch top prices. Standard equipment, properly cared far, plays a major part in the success or failure of the enterprise.

Section storeys and fittings must be precision cut, accurately assembled and strongly nailed. Half-depth storeys are unquestionably superior to full depth storeys for quality section production. Halves are lighter and easier to carry and store, are less likely to be parred or dropped, are easier to free of bees, can be manipulated to better advantage on the hives and are preferred by the bees. Beekeepers who have some full depth equipment on hand should use only one storey per hive, then continue supering with half depth storeys.

The New Zealand standard section storey measures 20in x 16in x 5¼in outside and is constructed of ⅞in dressed timber. It houses seven frames, each holding four 4¼ x 4¼ x 1 13/16in beeway sections.

The frames have three functions: They support the sections in the storey, they keep most of the outer surface free from propolis and wax and, most important of all, they hold the sections square. Dead square sections are easy and quick to pack and are least susceptible to damage. Each frame is fitted with a fence which is best made of hardboard or wood measuring 17⅞ x 3 9/16 x ⅛in.

Accurate observation of these measurements in most important and the fences should be nailed on dead centre if burr comb is to be eliminated. Beekeepers may be tempted to cut slots in hardboard or wood fences to make these less obstructive to the bees. Slots wider than 3/16in will cause a corresponding ridge of honeycomb across the sections which is undesirable, but holes up to ⅜in in diameter may be drilled to give the bees better access. These holes in no way impair the finish of the cappings.

In more general use, fences are cut from tinplate 4¼in wide, but bees much prefer wood — it is an insulator

— metal conducts warmth away from the clusters of wax builders.

Frames with hardboard or wooden fences are rigid and protect the honey from crushing, while frames with tin fences are easily racked out of square. They rust, are harder to clean and cut the hands. They also buckle with increased hive temperature, resulting in thin and underweight comb on one side of the bulges and thick and easily bruised comb on the opposite side. Good fences are indispensible; they standardise the weight of the comb, prevent it from protruding beyond the protection of the woodwork and eliminate burr comb.

The frames in each storey must be levered together against one side of the box and held in place with two super-springs (or with wooden wedges, but these tend to fall out) pressed into the gap so formed on the opposite side of the storey. This standardises the shape of finished sections and the gap provides a beeway passage that reduces travel stain and improves ventilation. Also, the sections in the frame next to the passageway will be finished better.

In other countries differently designed section honey storeys are advocated and used extensively. These include the United States standard top-bar-less frame, the frameless T super and a number of others. Although some of these designs, all tried out by the writers, will turn out good sections and have many advantages, especially in cost, each one nevertheless has serious faults under New Zealand conditions and we have no hesitation in recommending the continued use of our present standard design for beeway sections.

Kahikatea is the best New Zealand timber for sections. It is an attractive taint-free wood which does not absorb honey, but unfortunately it is becoming less plentiful and more expensive. Pinus radiate is our cheapest available straight-grained soft wood and it dresses up well. It is susceptible to an ugly greyish sap stain if not properly dried after milling and the sapwood has the serious fault of becoming saturated with honey after a time. This is rather unsightly and not in keeping with a fancy product, so timber used in section manufacture must be carefully selected.

Commercial section woodware in New Zealand has a neat, sawn finish and is strong, with splits and can be used for foundation. An interior saw finish is preferable to a dressed finish because it gives stronger anchorage for the comb, an advantage during transport. All exterior surfaces, including the beeways are quickly and easily dressed with a rotary wire brush by the beekeeper after the sections have been filled with honey.

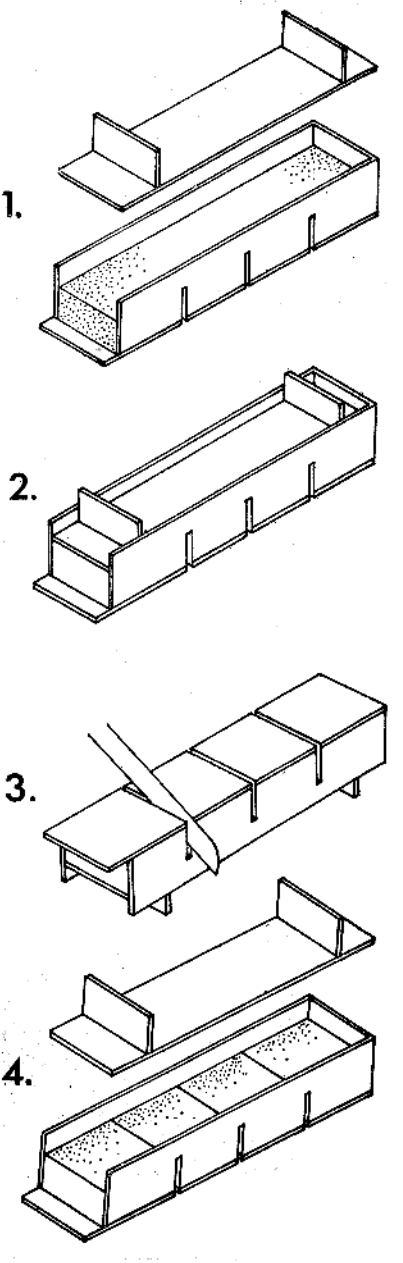
Section woodware snaps when folded if the V-grooved joints are not first moistened with boiling water or steam. the approved method of treating this type of section is to place two boards 14in apart on top of a sack. The sections are then stood neatly side by side on edge across the boards. For every 500 sections, two kettles full of boiling water are needed; the first is poured into the little V openings, then the sections are turned over on to their other edge and the second kettleful is applied.

The tongues and grooves should not be wetted or they will not fit well nor remain tight later. Steam rising from the sack also helps soften the woodware, which may be folded safely after half an hour.

When folded the sections are held against a heavy wooden block 5in high fixed square to the bench and the tongues are quickly and easily tapped together with one blow of a mallet used at an angle of about 60 degrees. The wooden squares so formed are tossed into an untidy heap to hasten drying. The less they are wetted the sooner they will dry and they must be dry before the foundation can be attached.

Only thin, super-grade foundation is suitable. Two pieces are required for each section. One piece 3¾in deep hangs from the top and the other, a strip cut ⅝in high, stands at the bottom. Both are only 3¾in wide, for it is important that foundation does not touch the sides of the section or it

Diagram of a two-piece mitre box recommended for accurate and fast cutting of comb foundation. 1. The foundation is placed in the box. 2. The stand is inserted. 3. The box is inverted and.... the foundation is cut through the box slots. 4. The box is again inverted, and the stand is removed to show the foundation cut into four pieces.



will buckle and cause misshapen comb.

The bottom strips are virtually essential. Besides ensuring attachment of the comb to at least 75 per cent of the circumference of the woodware, an important export requirement, they induce the bees to work the sections earlier than they otherwise would, making them less prone to sulking and swarming. Bees first build comb on the bottom strips and move upward as the bee population increases.

For fast, accurate cutting of foundation, a two-piece mitre box is recommended that will hold up to 30 sheets at a time. One-piece mitre boxes are inefficient and allow the sheets to move; the pieces will vary in size and stick together at the edges.

Long, thin, straight-edged, sharp knives are excellent for cutting foundation. A power hacksaw blade, fitted with handles at both ends and sharply ground, is ideal and is used with a seesaw motion. The knife is frequently lubricatetd with soap solution applied with a cloth.

The method recommended here of fitting the comb foundation is so superior to all others that it should be adopted exclusively. It is simple and quick and the wax is fastened so securely that it cannot be removed.

One edge of each piece of foundation wax is fused into the wood with a heated iron. Irons are cheap to make and can be easily cut out of a bricklayer's trovel with the aid of a hacksaw. Alternatively, a piece of aluminium plate 3⅞in square and about ⅛in thick and fitted with a heat resistant

handle will do. Irons are best heated on a flat electric stove element and if the little wax that adheres to the iron is wiped off from time to time there will be no smoke.

A soldering-like technique is employed. Firstly, the tip of the hot iron is held firmly against the woodwork where the join is to take place; then immediately, the piece of foundation (supported at the right height on a block of wood ⅞in deep and 3 11/16in square) is moved across until its edge touches the iron. There will be an instant hiss; the iron is withdrawn quickly and the two heated surfaces brought together.

The wax takes a little time to harden, so at least 12 of the supporting blocks mentioned are necessary for continuous work. These are best nailed on to a backing board in three rows of four blocks or one row of 12 blocks and are set up so that four sections can be lifted off simultaneously to be placed straight into a frame in the one movement. If a piece of 3 x 1in is nailed on edge at the point of balance underneath, the backing board will tip easily fore and aft, which is a great help to the operator.

The 10-frame Langstroth hive is about perfect for section production. It is only after one has tried to build a better hive that the merits of this hive, adopted as the New Zealand standard, can be fully appreciated. It is remarkable that the dimensions of the first frame hive invented upon in subsequent years — for section honey, anyway.

Beginners at section production naturally believe that a permanent two-storey broodnest would be better than a single one. The subject has often been debated but it is a fact that hives with single storey broodnests produce the best and the most sections, are easier to manage and require only half as much capital outlay.

Perhaps 25 per cent of colonies in single-storey broodnests will attempt to swarm, whereas almost all in double storey broodnests do. This is due to the bee's prefecence for storing honey in large combs rather than small ones and they congest the brood-mass in the upper broodnests with honey rather than put it into sections, and so create a swarming condition. In single broodnest hives, bees put the honey in the place they choose by nature, that is, in the sections immediately above the brood area.

It is common practice to use 10 frames in single-storey broodnests and wedge them to one side to facilitate removal of the first frame. However this arrangement obstructs the free flow of air about the colony and is not favoured by the writers, who prefer the system popular in U.S.A. of using nine combs and replacing the tenth with either one or two thin, all-wood dummy frames.

These have the same perimeter as standard frames but are only 5/16in thick where two all-wood frames are used in the broodnest, one on either side of the nine brood combs. Where one only is used it should be ½in or ⅝in in thickness. They have screws on either sidew hich are easily adjusted to ensure correct bee spaces.

All-wood frames provide a clear passage next to the wall of the hive. This aids air circulation and bee movement — important aspects of swarm control — and creates more comfortable conditions in the sections for the bees. Furthermore, the queens will completely fill with eggs the remaining nine combs, even those adjacent to the all-wood frames. When 10 combs and no all-wood frames are used, queens are reluctant to lay in the outer combs.

There is also another advantage when feeding becomes necessary; They can be removed and stored temporarily under the hives to make room for the insertion of division board feeders or extra combs of feed honey. This obviates the necessity to remove outside combs containing odd cells of honey or pollen during spring work and thus reduces the risk of robbing.

Broodnests comprising two half-depth storeys can also be used to advantage if desired and they work admirably. The added beeway they provide where the broodnest is dissected is an excellent additional swarm control measure.

BEEKEEPERS' TECHNICAL LIBRARY

Librarian — Chris Dawson, Box 423, Timaru

The following books, being the Library of the late *George Edmund Gumbrell,* a Foundation Life Member of the Library, were presented to your library by Mrs Gumbrell. We wish to thank the donor for this gift of a group of useful boks.

ABC and XYZ of BEEKEEPING (1940 edition) — 730 pages. BETTER QUEENS (1949) by *Jay Smith* — 100 pages. INTRODUCTION of QUEEN BEES (1943) by *L. E. Snelgrove* — 205 pages. BEEKEEPING FOR BEGINNERS (1950) by *E. L. B. James* (Copy autographed by the Author) — 290 pages. SKYSCRAPER HIVE (1948) by *Dugat* — 78 pages. BEE CRAFTSMAN (1945) by *Wadley* — 116 pages. BEES IN THEIR BONNETS (1948) by *Lennon* — 40 pages. BEEKEEPING IN N.Z. (1948 edition) by *Winter* — 162 pages. BEES AND HONEY (1941) by *W. A. Goodacre* — 140 pages. anw sundry pamphlets.

Copy of rules and catalogue of books free on request. Copies of books or a bundle of magazines available by return mail — Send 20 cents to Box 423, Timaru.

It is widely claimed that queen excluders are unnecessary on section hives but this is unsound advice, particularly under New Zealand conditions. They might well be unnecessary at times of heavy clover or manuka flows in districts devoid of pollen, but on all other occasions their use is imperative if sections are to be kept free of pollen. Sections that have contained pollen or brood are rejected by the grader for export.

Excluders confine the queen to the broodnest and prevent queens or brood being left above the bee escapes at harvest time, and they exclude drones, thus reducing travel stain, as does the thickness of the excluder itself, which keeps the honey further away from the brood. It is interesting to note that ⅞in deep top bars were first introduced for this reason in the 19th century, when it was found that the extra depth of wood kept the honey whiter.

Some excluders are better than others. English wire excluders with replaceable wooden rims are as good as any. Canadian manufactured excluders with metal rims are not good for section production, although they may be admirable for other purposes The wires are closer together and although no queen could possibly get through them, neither can the bees in comfort.

On section hives, Canadian excluders aggravate swarming.

FEEDING SUGAR TO HONEY BEE COLONIES

By I. W. Forster*

ABSTRACT

There was no significant difference, during two successive seasons, between the performance of honey bee colonies wintered on white cane sugar syrup, and those wintered on honey. Sugar loss was about 25% during ripening and storage.

INTRODUCTION

In the main honey producing areas of New Zealand about 40 lb of honey is left on a hive for winter feed, and the same amount may be fed per hive during the spring and early summer before the honey flow. This honey may cost more than cane sugar of equivalent energy value.

Authorities generally consider honey superior to white cane sugar for winter feed (Root 1945, Butler 1946, Smith 1949), but no detailed experimental work has been undertaken in New Zealand to test the soundness of this view. Ribbands (1950) carried out trials in the United Kingdom which showed that cane sugar could be fed successfully in the autumn. Under our less severe climatic conditions, with sources of spring nectar and pollen available earlier than in the United Kingdom, wintering on sugar would not be expected to affect hives adversely.

The objects of the present trial were to assess the long-term effect of feeding sugar to colonies, and to determine whether the beekeeper would gain economically by replacing honey usually left on hives for winter, and fed in the spring, with white cane sugar.

The composition of some non-white sugars varies, and their effect on bees would be unpredictable if they were fed over long periods. White cane sugar, a standard product, gives constant results. Hence its use in this work.

EXPERIMENTAL

At a concentration of about 67% by weight a sucrose solution is fully saturated at 17°C, and at lower temperatures there is a risk of granulation. But at 64% concentration temperatures as low as 0°C are unlikely to cause granulation (Ribbands 1950). Sugar syrup with a concentration of 62% was fed throughout this trial. It was prepared by adding 16 lb of white granulated cane sugar (sucrose) to each gallon of water. Solution was attained by agitation of the mixture in an eight-frame electrically operated honey extractor, run at 40 r.p.m. for 30 minutes. The application of heat, which may cause harmful caramelisation, was thus avoided. Acids were not used to invert the sucrose as they are unnecessary and may produce products harmful to bees (Bailey 1966).

Seven apiaries, containing 100 hives, and located slightly south of Timaru, were used in the experiment. Half the experimental hives were requeened in the spring of 1968, and half in the autumn of 1969, with queens of the same strain. Each apiary, composed entirely of queens of similar age, was divided, at random, into two equal groups of hives. Both groups were prepared, in April 1969, for wintering in double storeys. One group was provided with 40 lb of sealed honey, and all honey combs in the other were removed and replaced by empty ones. The latter group was then fed 6 gal of 62% sugar syrup per

hive before the end of May, resulting in each hive sealing about 40 lb of stores. In the spring extra honey, or sugar syrup, was supplied to the hives as required (Table 1). The syrup was fed in Miller type feeders holding 2 or 4 gal. The experiment was continued for two seasons, ending in March 1971.

Brood areas were assessed. Stored pollen was noted in May, September and October 1969 and 1970, and also in December 1970. Total honey stored in hives could not be assessed for the 1969-70 season, because it became necessary to move apiaries to inaccessible bush sites owing to a drought, but it was assessed for 1970-71.

Methods for estimating the weight of honey stored in hives were investigated. Usual assessment of the honey per hive (about 40 lb), in the group fed honey for wintering, was checked against the weight of honey extracted from surplus hives. Agreement was within 3 lb. Wedmore (1946) describes a method for obtaining a hive's weight in which the front and back are raised by the hook of a spring balance and the two readings combined. After tests with hives containing known weights of honey, this method was adapted to give the weight of honey stored in hives, it being found that each pound in excess of 30 lb, registered when the front of the hive was weighed, could be taken to represent 2 lb of stored honey. The standard error of an invidual reading was 2.6 lb, and that of a mean of 38 readings 0.4 lb. The method was found very dependable in the autumn, but less so in the spring, when increases in the weight of brood affected its accuracy.

All queens were clipped in the spring of 1969, and ones found unclipped in the spring of 1970 were considered produced by supersedure.

RESULTS

Adverse beekeeping conditions, which caused queen failure, resulted in the elimination of 17 sugar-fed and 24 honey-fed hives from the trial, mainly in the later stages. In addition 4 sugar-fed hives werer obbed out, and after hives were moved to bush sites two sugar-fed and one honey-fed hive were not returned to their original locations, and hence were withdrawn from the experiment.

Loss of sugar during ripening and storing was about 25%. Weights of sugar and honey fed and stored are shown in Table 1. Pollen supplies were ample, except in October 1969, when they were marginal for both groups. Queen supersedure was 24% in the sugar-fed group, and 25% in the honey-fed one.

Brood areas did not vary significantly between the groups, except during sugar feeding in May 19 9, when sugar-fed hives averaged 0.8 frames, compared with 0.6 frames for honey-fed ones.

DISCUSSION

No problems arose when bees were wintered solely on white sugar. The sugar was fed during April and May only. When overseas authorities (Kettner, Mel'nichuk, both 1966) refer to the effects of early or late feeding, this operation would be undertaken under severe climatic conditions, very different from our moderate ones. We consider the time of feeding in New Zealand is unimportant.

The loss, during processing and storing, of about 25% of the sugar fed the hives approximates that of 20% obtained by Gubin (1927). Lossess obtained by Ribbands (1950) varied from 1 - 23%, depending on the time when the syrup was fed.

Brood was 45% more for sugar-fed hives than for honey-fed ones in May 1969. Because total brood averaged less than a frame per hive this increase would have little effect on consumption of stores. However, stimulation of brood rearing could be an important factor in districts with a milder climate than South Canterbury, and might result in a greater loss of sugar during storage by the bees.

Total removal of honey from a hive in which the queen has access to two storeys necessitates extensive manipulation liable to cause serious disorganisation. This resulted in the loss, by robbing, of 4 of the 50 sugar-fed hives. Con-

fining the queen permanently to the bottom storey greatly facilitates stripping honey from hives for wintering on sugar, and should obviate such losses.

The economics of sugar feeding is governed mainly by the relative prices of sugar and honey. These fluctuate, even among beekeepers, according to their honey marketing arrangements and access to sugar supplies. However, allowance must be made for several subsidiary factors. These include the distance travelled to replace honey with sugar, and the quantity of special equipment needed. A beekeeper who did not already carry out large-scale spring feeding would require to buy feeders and equipment for mixing, transporting, and dispensing syrup.

An estimate of the cost of feeding sugar for wintering 100 hives follows (September 1971).

Cost

Labour (8 hours at $1.50)	$ 12.00
Mileage (b0 miles at 13c)	$ 5.20
Interest on cost feeders ($163 at 7%)	$ 11.41
Depreciation on cost feeders ($163 at 5%)	$ 8.15
5,000 lb sugar to give 40 lb stores per hive (8.54c per lb)	$427.00
	$463.76

Return

4,000 lb honey on hives (10c per lb)	$400.00

These figures show a loss of $63.76 for honey sold at the minimum price of 10c per lb on the hive. A rise of 2c per lb for the honey, or the purchase of sugar direct from the New Zealand Sugar Co. Ltd., at a saving of 1.75c per lb, would convert this loss into a profit.

Following a season of very low honey production it might be politic for a beekeeper to continue supplying, and so retain, an established lucrative market for a short time, by wintering his bees on sugar to provide more honey.

TABLE 1: Feeding Sugar and Honey (lb) to Hives

*Estimated approximately one week after feeding.
Number of hives given in brackets.
All hives were wintered in double storeys except the sugar-fed ones in 1970 which were wintered in single storeys. These consumed less stores.
Weights of sugar fed are dry sugar, and weights stored contain about 17% water.

Date	Sugar		Honey	
	Fed	Stored	Fed	Stored
1969				
May 6	30.8 (46)	*16.6 (46)	40.0 (48)	40.0 (48)
May 22	15.4 (46)	*40.8 (46)	—	39.3 (48)
Sept 16	—	11.4 (45)	—	12.1 (47)
Oct 30	15.4 (45)	* 8.7 (45)	12 (47)	* 9.0 (45)
1970				
May 15	30.8 (43)	—	40.0 (44)	40.0 (44)
Sept 11	—	11.0 (40)	—	25.4 (44)
Sept 23	7.7 (40)	*16.2 (40)	9.0 (42)	*14.0 (42)
Oct 27	—	7.6 (35)	—	9.3 (40)
Dec 1	—	8.8 (29)	—	8.9 (33)
1971				
Mar 22		(27)		(25)

ACKNOWLEDGEMENTS

Help in planning the project and presenting results was given by Mr T. Palmer-Jones, Wallaceville Animal Research Centre; statistical analysis was provided by the Biometrics Section, Department of Agriculture; and Cloakes Honey Ltd., Timaru, made apiaries and equipment available.

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*Wallaceville Animal Research Centre, Department of Agriculture, Private Bag, Upper Hutt.

Letters to the Editor

Correspondence on any subject of interest to beekeepers is cordially invited. Publication does not necessarily imply agreement with the views expressed.

25 Glen Atkinson Street,
St. Heliers.

Sir,

re: *BOB WALSH*

It was with regret I read your excellent article on Bob's retirement due to the age factor in the Government Service. With you, it seems a great pity we have to lose this man in the honey industry when he is still active and it is remarkable he is forced to retire when there is evidently no one to replace him.

You mentioned in your article how he has also helped the amateur. As President of the Auckland Beekeepers' Club Inc. I can vouch for this and have experienced his kindness and consideration over a period. Nothing was ever a trouble to him, in fact our present Club Apiary Site was organised by him. He found an old disused quarry belonging to the them Public Works and obtained permission to use it from the late Bob Semple. This goes back over twenty years and ever since then Bob's enthusiasm, help and advice has always been with us.

To say he will be missed is so very true while there is no-one in the Department to take his place with his knowledge and ability. One wonders why he has to be retired at such an inconvenient period with the existing staff shortage.

On behalf of the Auckland Beekeepers' Club we can only wish him well for the future and desire to extend our thanks for his ever generous help and support.

Phil Muir

★ ★ ★

Matamata,
January 20th, 1972

Sir,

In the last issue was an article on why we should not import new strains of bees. May I point out, as a practical beekeeper some of the advantages.

The majority of beekeepers are not running anything like a pure Italian strain, and seem to manage somehow with darker bees.

Those who are keeping Italians are kind hearted and hate to see their lovely bees go hungry, and are prepared to feed and feed and feed to keep them alive, and in the Autumn watch them eat a box of honey as they breed their heads off!

It pays to brand 'em

Don't sell your honey blind! If you want people to buy **your honey** — not just any honey — you must mark it with your brand or name.

- **Branding pays, especially in CARDEA cartons because you can get bold striking designs which make your name stand out.**
- **With a distinctive design and a boldly displayed name, customers will be able to pick YOUR honey out AGAIN**

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However, one must admit some good traits in the Italian. Boy can they rob! It takes a good honey house to keep them out in the Autumn. They can really produce — bees — if you feed them enough combs of honey, and are like watersiders if the weather is in doubt.

Of course, there are good Italians and bad Italians, as there are good and bad in other races.

Surely those races of bees which have survived some of the colder northern countries would be more suitable for those who work bees for a living in wet, cold, bleak, windswept conditions we experience each Spring, in preference to bees from the warm sunny climates of Italy.

Of course if you know where one can purchase breeding stock in N.Z. that doesn't eat its head off, rob like mad, breed excessively in the Autumn and winter, can survive our harsh Spring conditions, will produce a good crop of honey, and not be affected by nosema I would be pleased to know.

The beef and sheep industries are all importing new strains for trial, so why can't we.

CLIFF BIRD

P.S. — A friend from Kenya told me the African bee is as mad there as it is in South America where it has earned a bad name for viciousness.

★ ★ ★

Kintail Apiaries,
Guy Street,
DANNEVIRKE
17th January 1972

IMPORTATION OF BEES

Sir,

I wish to reply to the article written by Mr T. Palmer-Jones in the November 1971 issue of the N.Z. Beekeeper titled "The Case Against Importing Honey Bees Into New Zealand". Mr Palmer-Jones has drawn a very one-sided picture regarding the effects of introduction of bees.

Just to look at the other side of the coin, animal and plant breeders know the importance of maintaining high-production stock. New breeds and strains are continually being introduced, provided that certain quarantine standards are met. However, New Zealand apicultural scientists have made little effort towards making an overall improvement in honeybee quality. The honeybee is a naturally outcrossing species and without new blood a deterioration in quality will occur as a result in inbreeding.

My concern for the quality and quantity of N.Z. bees led me to make application to the Minister of Agriculture for the importation of queen bees from Tonga. Large numbers of queen bees imported from a disease-free area in the South Pacific and available during the August-October period would greatly improve New Zealand's beekeeping standards.

Last August I obtained 95% queen-mating success in Tonga, under ideal nectar and pollen conditions, but had less than 30% in October from my Hawkes Bay nucs. Queen bees in early spring-time would mean replacement of winter losses, spring split increases, and two-queen system utilized to the full. Southern beekeepers could over-winter less hives, with a conisderable saving in white feed honey. Economically then, readily available spring queen bees would have a great effect upon our beekeeping industry.

It is fortunate that Mr Palmer-Jones attitude of "Totalling banning imports of honey bees from overseas" does not reflect Department of Agriculture policy, otherwise my Company would not have spent hundreds of dollars sending a Departmental man (Mr R. S. Walsh) to Tonga, to collect bee samples.

An external mite, unknown to N.Z., was found as a result of the Tonga sampling. I fully agree that N.Z. should not import any stock liable to be injurious or harmful to our present bee strains. Mr P. G. Clinch states that a thorough investigation of the Tonga mite is necessary before clearance can be given. I hope that this investigation will be made as soon as possible.

In the meantime my Company will be keeping a close watch on our bees in Tonga to see if there is any effect upon them. We have obtained the help of veterinary diagnostic services in Tonga. In conclusion, the Director of Agriculture in Tonga wished me to point out that the mites have so far only been detected in colonies imported from New Zealand.

Yours faithfully,

DUDLEY L. WARD

★ ★ ★

Kaitaia,
20/1/72

Sir,

The impression given by an article in the last issue of the N.Z. Beekeeper regarding shipping bees on aeroplanes has placed the blame on our shoulders, where it does not belong. For 20 yars we have been shipping bees by plane with only one mishap, that was at the airport of Christchurch where a small pine nott was knocked out and bees escaped.

In collaboration with the Department of Agriculture and N.A.C. we then formulated a crate designed especially for the carriage of bees. A copy of this design is in all airways manuals should anyone be interested. To date we have had no leakages in aircraft and a good service by N.A.C. has helped to ensure this.

The agent in Kaitaia accepted a 4 frame nucleus of bees, in an

unauthorised container for air-freighting bees, which was porly packed, resulting in a passengero being stung.

The person concerned in shipping these bees in such a poor condition has played right into the pilot's hands, who ever since bees have been sent by air have been looking for an excuse to stop shipment of them on aircraft.

N.A.C. in its wisdom has now banned bees on "Friendship" flights which means that we are unable to continue our package bee business because of difficulty in getting bees to Auckland and from main trunck routes to airports served by "Friendships".

"Friendships" are the only planes involved in this ban because the freight compartment is only shielded by a curtain from the flight deck and cabin.

M. D. HAINES,
Haines Apiaries Ltd.

★ ★ ★

RD1 Henderson,
2nd January, 1972.

Sir,

In regard to the article on wasp control in the November edition of your magazine: perhaps a similar method could be devised as used in some American States. They use a dust composed of 5% chlordane for dealing with some troublesome species of ants. The dust is sprinkled around the hive and the ants take it back to their nest on their legs and body, thereby destroying the queen. This sounds a bit risky, but perhaps it could be sprinkled around a fish bait near the hives.

D. Baker

★ ★ ★

FOOTNOTE:—

Mr Graham Walton, Apicultural Advisory Officer, Department of Agriculture, Palmerston North replies:— "We sincerely appreciate Mr Baker's comments on the problems of wasp control. The insecticide Chlordane sprinkled over and around a fish bait, would, like many other combinations of attractants and insecticide, have a partial controlling effect on wasps. The method has been tried in New Zealand but is seasonal, attracts other insects and mammals, and varies with the type of fish and the insecticide application.

Although we have been testing a number of chemicals found to be highly attractive to **Vespula sp.** in the United States, and in fact are continuing to do so, it has been disconcerting to us in not being able to find a suitable attractant for our own species of **Vespula** under New Zealand conditions.

Christian Road.

COMMENTARY from the Editor's Desk and Mail

ENGLISH HOBBYIST N. J. ATKINSON of Woking, Surrey, who visited New Zealand and called on commercial beekeepers whilst here, sent greetings to his many contacts in a letter to Phil Muir of Auckland prior to Christmas. As a visitor to the World Apicultural Congress in Moscow, he was much impressed by the freedom of movement permitted in the country and says that he was only stopped once and asked to turn out his pockets because of a suspicious bulge — which was an apple — in his trouser pocket!

A number of state farms were visited, and some 2,000 miles was travelled in Estonia visiting agricultural schools, state farms and apiaries. At the Research Institute of Ivan Petrovich Pavlov (the animal behaviour scientist, a demonstration was given of a simulated bee dance, by which bees can be directed to a source of nectar when required for pollination purposes.

Honey was selling at the approximate equivalent of $2.40 per kilo (2½ lbs) but the flavour was not thought to be equal to NZ or UK honey.

★ ★ ★

THE QUEENSLAND HONEY INDUSTRY COUNCIL are organising their first ever All Australian Bee Congress, which will be held on the Gold Coast at the Broadbeach International Hotel on October 13, 14, 15, 16, 1972.

Theme of the Congress will be "Presenting Australian Honey to the World" and prominent international authorities on honey and honey production will be guest speakers including Professor Gordon Townsend from Guelph, Canada and others from the United Kingdom, America, Japan, and Europe as well as from the host country.

The sponsors hope to have a contingent from New Zealand and tentative enquiries for an organiser have already been made.

New Zealand beekeepers profited by their previous organised trip to Australia, and there will be much to be learned from the Congress.

Further information will be published in our May edition.

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ACCORDING TO A NEWSPAPER report in the UK, the Darlem Secondary School in Denbighshire is carrying out experiments to produce a "super bee, which will live for ten weeks, compared with an average of six; will fly at much lower temperatures, and pollinate for about two hours a day longer." This sounds wonderful and we fervently wish the young researchers the best of British luck — which they will need. Perhaps an enthusiastic reporter has been listening intently to an equally enthusiastic instructor at the school.

★ ★ ★

DETAILED IN GLEANINGS is the fact that bees are featured on over 100 postage stamps from 30 different countries. Several attempts have been made to interest our own NZ Post Office in a series of bee stamps, so far without success, although non-productive moths have been so featured.

Stamp collectors can obtain a free list from Dr K. P. Pruess, The State Revenue Society, 1441 Urbana Lane, Lincoln, Nebraska 68505 giving full information as to where such stamps can be obtained.

★ ★ ★

A USDA leaflet records the fact that: "The honey bee is vitally important to the US economy and it is a major pollinator of legume seeds, fruit and vegetable crops. About one billion dollars' worth of agricultural crops are completely dependent on insects before the crop can be produced, with honey bees pollinating an estimated 85% of this total."

Some of our orchardists would do well to realise this fact that the bee is an essential pollinator, and be prepared to pay reasonable fees for services.

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BEES IN THE AUCKLAND area thought they knew of a good location to set up home in the residence of an owner sympathetic to a bee way of life.

Twice during the current swarming season wild nests have been established in two different sites in the roof and wall of the editor's house and on the second occasion, guile and know-how dictated a virtually inaccessible position beneath the guttering and out wall requiring the services of a fireman's ladder and a head for heights.

However, "it aint what you know but who you know that counts", and with the willing services of Department of Agriculture apiary instructor Brian Milnes and a massive doseage of DDT, both nests were effectively exterminated.

On the second and more difficult assignment access was obtained by Brian laying face downwards on the top of a flat roof with the editor firmly holding his feet as a sheet anchor, and the pressure gun manouvered into position of the entrance hole twixt roof and wall.

The sight of ghost-like white bees flying round the area was both distressing and comforting and the natural question to ask was "Why pick on my home for wild nests?" There are plenty of equally sound roofs around with access points. Origin of the swarms has not yet been traced although it is known that some wild nests existed in the bough of a pohutekawa tree on the cliff face until the trees were lopped last year.

Incidentally, Brian has two highly productive hives on the roof of the Department of Agriculture building in central Auckland, for which good forage is obtained from local park and gardens and nectar producing trees in the area. At the time of writing with tropical cyclone Althea on the rampage, if a hive is seen to be airborne, it would not be surprising.

★ ★ ★

IT'S A WEIRDO WORLD. Grants are to be made in the UK toward the cost of grubbing up old orchards on condition that there shall be no replanting for five years. If the ground is to be left fallow, a greater area may be available for bee forage — unless, of course, they are sprayed to destroy wild flowering plants.

★ ★ ★

ONTARIO BEEKEEPERS' ASSOCIATION report to members emphasises that the honey market there remains very firm due to the widespread interest in importations from Japan and the U.S.A. A short crop in parts of the United States has resulted in an unusual amount of activity on the part of American buyers seeking honey supplies in Canada. Reports have been received of honey being purchased for as much as 21c F.O.B., containers supplied by the producer, unsubstantiated statements have also been heard about prices actually being slightly higher than this, however it does seem that in Ontario the price has stabilized at approximately 18-20c per pound depending upon quality.

Beeswax is selling at something over 70 cents per lb.

★ ★ ★

Questions: "D'ya ever get bit?" is the most common one. I always reply, "Never," which is indeed the truth.

"How are the bees?" Answer; "Waxing."

"Who looks after the bees when you are away?" Answer; "The Almighty."

"How much money do you make in your honey business *per bee?*"

There is no answer to that one, but maybe "fifteen or twenty zeros following the decimal point." Dr. R. Taylor — "Gleanings in Bee Culture"

★ ★ ★

DUDLEY WARD reports that his Tongan project is progressing well and that he now has a build up to 400 odd hives. The first shipment of honey was made to London last December.

Dudley's son James takes over from Grant in February for a stint of 2 years. Everyone wishes the project well.

THE SCOTTISH BAKERY trade are being offered a commodity called "HONI-BAKE" which is the registered trade name of a pack of dehydrated honey. Said to resemble granulated sugar in texture and therefore easy to handle and non-sticky, "HONI-BAKE" is free flowing and is alleged to be the means of producing a superior cake. Bearing in mind the advantages claimed of free-flow and non stickiness, it is a little confusing to read that, as with most dehydrated products, water has to be added before use. However, if there is a baking trade demand for dehydrated honey, there would seem to be no reason why the process cannot be undertaken here reducing weight and shipping costs and providing another sales outlet for the raw material.

★ ★ ★

STATE FORESTS OF NEW ZEALAND are not the only boards to seek revenue from beekeepers for the privilege of keeping hives on Forestry Land.

A beekeeper in the UK points out that he has been paying 2s 6d per hive for the past twelve years, but that a 200% rise in rental charges means that he has to pay 7s 6d per hive. An official reply to the protest claims that increased administrative costs necessitate the increase, and not surprisingly the beekeeper is asking where the administrative costs are incurred. Writing out the receipt?

★ ★ ★

A WELCOME VISITOR to the office in January was Cmd. E. W. Monckton from Troon, Ayreshire, Scotland. Cmd. Monckton spent 3 years at Devonport dockyard 30 years ago whilst on war service and has been enjoying a nostalgic return to his old haunts in addition to touring the North and South islands. Unfortunately, the many miles covered was all by public transport and drivers of buses can hardly be expected to stop at the sight of some hives on the other side of a paddock, so that not a bee was handled during the whole visit. Cmd. Monckton is a hobbyist with a dozen hives at home, and hoped to fit in visits to commercial yards whilst here.

A KENT PRIMARY SCHOOLGIRL in England where bees are kept for educational purposes was writing on feeding. She wrote:— "We have to give our bees sugar because Miss pinches all their honey."

★ ★ ★

BEEKEEPERS IN AUCKLAND would have been hard pressed for expert and technical assistance during the December-January holiday period. With the compulsory retirement of apiculturist Bob Walsh, the area apiary instructor on annual leave and a deficiency in the strength of field men, there was no help availabl eif the need arose. With n rea the size of the Auckland office stamping ground, it will be impossible for one man to undertake all duties required of him, and in the interests of the industry it is very much hoped that replacements will soon be made.

★ ★ ★

A TELEGRAPHIC enquiry to the Department of Agriculture in Wellington indicates that the findings of the Caucus Committee into the beekeeping industry will not be available for publication in this issue. There will be a great deal of work and collation to be finalised and we shall look forward to a report in the May edition.

★ ★ ★

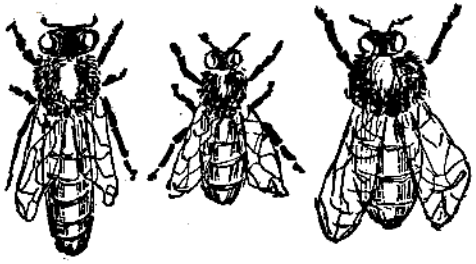
A MEETING of the executive of the NBA will be held in March at Wellington. Whilst there have been matters which could have been disoussed at earlier meetings, cost is a paramount factor, and the President was compelled to decide that the next meeting would have to be in March to conserve funds. Executive members travel from all corners of the North and South Islands, and fares cost money, as does sustenance and accommodation.

★ ★ ★

IN THE WAIKATO, severe losses of up to 75% of young introduced queens bred by breeders in varying places has been experienced this year and the branch has asked the Department of Agriculture to conduct research in to the cause and in particular, to ascertain whether nosem is the factor. Apicultural Advisory Officer G. M. Walton of Palmerston North is investigating the situation and determining the the preventive measures to be taken to preclude recurrence. Apiary Instructor A. W. Bennett will assist in the work.

★ ★ ★

COLD AND MISERABLE days have been the lot of Otago beekeepers in many parts of the province, particularly those nearest to the coast. Theseason started well in December but January weather has cut down flying time to a minimum with stores consumed as a result. The prospect for a good crop is poor in many parts.



An Odd Ode from Devon

Whilst not qualifying for an award as a gem of English literature this amusing ode from "BEECRAFT" lends colour to the imagination.

Now hark to the tale of Miss Mirabell Lees,
Who decided to take up the keeping of bees —
A spinster of thirty, with far too much money.
But instead of shopping, and buying her honey,
She'd rule a great Empire of Insects for pleasure,
And have a fine hobby to fill up her leisure.

Now, Mirabelle lived in a house of her own —
No husband, no sweetheart — she thought Man a Drone —
Though marriage would at times, she considered, be jolly,
She'd a horrible thought men just wanted her lolly.
Though I here and now state, without hedging, or stint,
That Mirabelle Lees was a nice-looking bint.

The neighbours twitched curtains at curiosity's urges
As a large van unloaded equipment from Burgess.
What filled all the ladies with the greatest unease,
Was a series of boxes each labelled 'LIVE BEES'.
Each neighbour watched breathless, as quiet as a mouse,
As the hives were set up at the back of the house.

The incident sparked off some wonderful capers —
Folks rang up the police, and some wrote to the papers.
Each wasp, fly, or spider was swatted on sight —
A woodlouse gave one chap a hell of a fright.
The reason is plain, as each bee-keeper sees —
Most people are too scared to learn about bees!

Strange to relate, there was no wholesale slaughter,
Though bees sat on folk's washing, to suck up the water
An L-Driver lad got a bee up his hooter,
Went base-over-apex, and fell off his scooter.
Some dolls in the High Street performed a weird dance
As bees tried to seek shelter inside their Hot Pants.

What with Strikes, and Concorde, the interest soon faded,
And people forgot that the place was invaded.
Mirabell sang, as she piled on the supers,
The bees started at gathering nectar, like troopers.
Mirabell worked in her kitchen, at home,
Filling the jars, and packaging comb.

Then, one Sunday morning, as Miss Lees left Church,
A man grabbed her arm, and said "Cheers! End of Search!
They're lookin' fer you, Miss, all over the Town —
Your dam' bees have swarmed in the porch of the Crown —

What people will do to you, I shudders to think —
Yer bees 'ave intruded 'twixt Man and his Drink!"

Mirabell scurried away to the Crown,
And studied the massive great swarm with a frown.
"These bees are black strangers", said Mirabell, prettily,
"Whereas mine are gold-banded ones, coming from Italy!"
"I don't give a hoot, now, for problems of Race —"
Said the Landlord, "Jest get 'em to heck off my place!"

A very large crowd had soon grown in the Square,
As Mirabelle stood on an old kitchen chair,
And then, in the midst of a deathly-still hush,
She swept the swarm into a box with a brush.
Then, to keep the bees in, and make doubly certain,
She covered the mouth of the box with a curtain.
The young Squire himself helped her step to the ground,
While the cheers from the audience echoed around.
She'd a beer on the House. She appeared on the screen
As the bravest young lady that ever was seen.
It gave people a bit of a thrill, or a shock,
To see a swarm boxed by a girl in a frock.
"And what—" you may ask— "Was the next to transpire?"
You've guessed it -- our Mirabell married the Squire.
They live in a place called The Grange, which looks over
Great vistas of blossom, including white clover.
The lawns, by a process most useful, and rational,
Are covered with beehives — Commercial, and National!

BRANCH NOTES

SOUTH WESTERN

The South Western Districts Branch held its last meeting for 1971 on November 30 in conjunction with the Dept. of Agriculture.

This meeting was well attended and the guest speaker was Mr Ted Roberts of Massey University who gave us an illustrated talk on beekeeping in South Africa. This was followed by results of trials by Mr G. Walton Apicultural Advisory Officer, Palmerston North, on 2-queen management and the pros and cons of its efficiency.

Now the New Year is here most Manawatu beekeepers have some of their crops on. At the moment it looks to be average — to above average, most of which can be attributed to a good Spring.

Swarming seemed to be down to a minimum this year with very few being taken.

Reported by K. C. MORRIS

HAWKES BAY

A well attended field day was held at "Honey House", Onekawa, Napier, the distribution centre of the President Mr Walter Watt.

Practical demonstrations by Mr Bradfield of Central Hawkes Bay of electric embedding, and his ability to embed four wires at once aroused much interest, as did his new metal framed roof.

A conducted tour of "Honeyhouse" was followed by afternoon tea, and Mr P. Marshall's talk on hive management for honey production, brought a pleasant afternoon to a close.

Reported by Mrs P. D. MAULTSAID

WAIKATO

Are you a discouraged beekeeper? There are many like that up here, and one can't blame them, when their average payout from the HMA was about 10c* while their southern brothers get 4½c more.

Spring conditions did not improve much. Another 10 inches of rain in November, with strong winds saw a lot of sugar poured into hives, only to watch them going to pieces.

As was to be expected, nosema struck, and was responsible for the loss of up to 80% of Spring raised queens, which were coming along so nicely. We raised about 900 and lost 800, all in a matter of about 10 days. These queens had been accepted and laying well then just disappeared. Two sent for examination showed heavy and medium nosema, the same as one tested last year. These queens had both stopped laying about 5 days previously. Mr Bates even saw one queen stagger out and fall off the front of the bottom board.

This loss was evident in queens introduced from breeders elsewhere, although eastern Waikato, Rotorua and Taupo seemed the worst affected. In many places bees could be seen in hundreds crawling along the ground, and some hives really went down, and most of the bees seemed quite young.

All in all most beekeepers are down in numbers and colonies generally were about 70% of normal hives at the start of the honey flow. Kahami which flowered so heavily failed to yield except at Taupo. Tawari was about ½ average, buttercup and rewa rewa very poor. Clover and blackberry have flowered very well, and on the light Taupo Country very good

crops seem assured, whilst elsewhere if the weather will continue warm a near average crop of white honey could be gathered. Areas exposed to the North East winds which have persisted over Xmas-New Year will be lucky to do better than winter stores. Taken all over with the lower hive numbers and poor hives total production will be below average.

Another problem was to get young queens introduced safely, and I wonder if nosema infected bees are not a good prospect for a nice young queen. Reports are of 100% losses of queens introduced direct to hives, while we lost 40% at times introducing to nucs. Even preparing on a nuc was not always successful.

My new two queen system was a flop mainly because of the loss of queens in mid November, but the queen losses were as bad in two queen hives run on the old system. Those which succeeded made some lovely hives.

They say when you are discouraged there are two things you can do. Drink like a fish or go fishing. Congratulations to Maurice Deadman who has made it at last. A 261 lb striped marlin.

Reported by C. BIRD

*For the sake of the record the recent H.M.A. pay out was 14½ cents per hundred payout points:

95	payout points	made	13.775 cents
94	payout points	made	12.455 cents
86	payout points	made	11.395 cents
75	payout points	made	9.75 cents

The overall average payout was 13.18 cents per lb. Whilst the correspondent's informant was no doubt a supplier of darker honey, in fairness to the H.M.A. it must be pointed out that the figures quoted are official and that the H.M.A. have no record of our correspondent having supplied honey to the H.M.A. this season.—Editor.

OTAGO

The Branch apiary was the scene of two very successful gatherings of interested hobbyists in September and November. Apiary Instructor Gavin McKenzie opened the hives on both occasions and a lot of very practical knowledge was most ably dispensed. Plenty of questions were asked and answered and many small hive holdings will surely benefit as a result.

Up to Christmas most beekeepers were jubilant over prospects with many hives boasting a full box of fresh honey but it was a good start not maintained. With the change of weather over Christmas the nectar flow practically ceased, and progress has come to a grinding halt.

There are optimists amongst us who are still hoping for things to improve but our fingers are getting rather sore from being crossed so tightly for so long.

After the outstanding success of our Field Day last year at President John Heineman's property in Milton we are returning to Milton this year in expectation of the same magic working. Ivan Dickinson, N.B.A. Vice President is to be our host on his property and we look forward to a rewarding get-together and meeting visitors from other Branches at 10 a.m. Saturday, 19th February.

Reported by Phil Morrow

NORTHLAND

At the time of writing it is very difficult to state what the honey yield is to be after the weather we have had in the sunny North. September weather was good: October was terrible with rain and wind every day with the result that a lot of stores were eaten and bees left in a sorry state in some districts.

One commercial member was saying that he is down by one-third to what he had this time last season. Never to worry; just hope for a better season next year.

There were only a small number of swarms this spring and those were of medium size. No 6 lbs this year, as last.

There is a heavy flowering of lotus and dandylion so if the weather stays with us the bees can get some stores to keep them alive through the winter.

I understand the Far North branch is working hard to have everything in order for the forth-coming season and to show Southern members that the best part of N.Z. is from Auckland up to the Cape!

The two branches are hoping to have a combined field day during April at the yard of Malcolm Haines at Kaitaia. Members will be notified at a later date.

Reported by Arthur Tucker

★ ★ ★

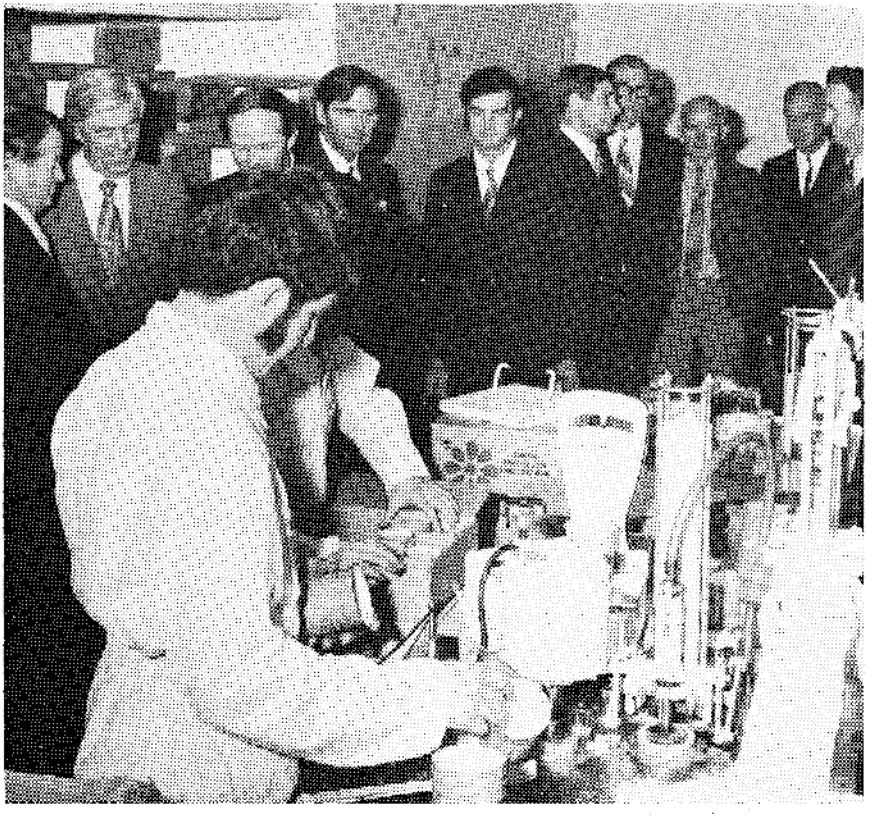
AN ENGLISHMAN in Nigeria Robert Wilkinson met a painful death on a rock climbing expedition with some of the members of the Kurra Falls Outward Bound Mountain School, of which he was officer-in-charge.

Target for the climb was Wase Rock, a sheer walled, desolate mountain rising 800 feet from the plain of Benu-Ltateau State. The only inhabitants are birds, baboons, snakes and bees.

A nest of wild mountain bees were disturbed by Wilkinson and his two Nigerian companions and although efforts were made to reach them from another trail, it was six days before the bees had quietened sufficiently for a rescue party to get within reach. The two Nigerians recovered in hospital from their multi-stings, but the white man was found dead.

Wilkinson had made his home in Nigeria and had married a local girl.

CAUCUS COMMITTEE AT HMA PLANT IN TIMARU



The Caucus Committee of Inquiry into the honey industry under the chairmanship of the Under-Secretary to the Minister of Agriculture, Mr A. D. Dick, meeting in Timaru to hear submissions from interested parties. Members of the committee visited the Honey Marketing Authority's plant at Pleasant Point, accompanied by members of the Honey Marketing Authority and Department of Agriculture officers. Pictured from left: R. Poole (Chairman of the Authority), L. W. Gandar, M.P. for Manawatu, R. L. G. Talbot, M.P. V. Cook (Department of Agriculture), W. A. Merritt (factory manager, Hornby), E. W. Lee (Dept. of Agriculture), H. Cloake, J. Fraser, R. Macdonald (Manager of the Authority), and A. K. Ecroyd.

(Picture by courtesy of TIMARU HERALD).

GAINING SUPPORT FOR NECTAR BEARING TREES

By John Smith, Apiary Instructor
Department of Agriculture, Christchurch

It all started on a warm winters' day. The Apiary Instructor had taken the best chair, by the window in the sun, and was dozing away while the beekeepers held their annual general meeting.

In their usual efficient way the beekeepers, with little or no wastage of words, passed the reports, elected officers and discussed the remits to the coming conference, which in the latter case was leaving it to the delegates when they found out what the blazes the other branch was getting at.

Then they moved on to the hardy annual, asking the Department of Agriculture to produce a leaflet on pollen and nectar producing trees. Whether it was hoped that this year's list would be much different from the one produced in 1929 we will never know. For when the Apiary Instructor was asked his views, he awoke with a start, looked wildly around him, and without thinking said, "Let's not talk this year. Let's act — give the secretary and myself $50 out of the funds and we will do something about getting some trees planted."

With that he sat down with a smile, knowing that the thought of parting with money would put a stop to any more talk and the meeting would soon return to less controversial subjects like the H.M.A.

The branch secretary, I should add, looked daggers at him at the thought of more work, but as the meeting had just voted him a pay rise, he had no option but support the idea.

So that is how, as Apiary Instructor in Christchurch, I suddenly found myself the okay to spend up to $50 of N.B.A. branch funds, the promise of the able assistance of Bob Burness the Secretary, and only a very vague idea in the back of my mind on what I was going to do.

A plan was worked out and it was decided that it would revolve around Bob Walsh's book "Nectar and Pollen sources of New Zealand," and an effort to be made to get this book into as many hands as possible.

First, 50 copies would be given to people in the district who were known to be vitally interested in planting trees and here I received my first shock. In an area approximately one-third of the South Island, containing an agricultural college, a school of forestry and a so-called garden city, only 22 people could be found of whom it could be said were vitally concerned with the appearance of the countryside. However, with just a little widening of our scope it was possible to place with effect the 50 copies.

Then a programme involving the N.Z.B.C. was thought up; first came a talk from myself; this was followed a week later by another talk by a Horticulture Advisory Officer with the Agriculture Department in which reference was made to "Bob's book". The rural broadcaster took over from there, giving two good plugs for the book two weeks running.

In all, I did not feel we had bad value, for the gift of a 50c book to the rural broadcaster, considering I was paid for my talk.

The local papers also became involved, one making the pollen shortage and need to plant trees a news item, the other gave us two 2,000

Overstocking? — Understocking?

"Some consider that a country cannot be overstocked (with bees) on account of the supposed inexhaustible supply of food which the vegetable kingdom is continually producing and reproducing; others maintain that a country may be overstocked with bees on the same principle that a field may be overstocked with cattle, and therefore with every species of stock the number ought to be reduced to the means of subsistence. We certainly have no reason to fear that any pasture this country (England) will be overstocked with bees, for we scruple to the theory — that where one hive is now kept, fifty might be kept without running any risk of overstocking the country. The average number of hives in the Apiaries of this country do not exceed five, and we know of only one apiary which ever reached the number of sixty and that was at Cobham in Kent. The proprietor, however, was a perfect charlaton in beekeeping; the aspect of his hives was not of the slightest consideration to him for they faced all the points of the compass; and to attempt to instil any instruction into him relative to the improved method of keeping bees was similar to driving a gimlet into a block of marble. We were introduced to this most eccentric of all bee-masters by the late Mr Stevenson, the steward of the Earl of Darnley, and on beginning to expatiate with him on several instances of his bad management in his apiary, he very cooly insisted that we should leave his premises, for, according to his own opinion, he was the only man in England who really understood the management of bees. Nothing could give him greater offence than to ask him to sell a hive, for he had formed a resolution to die with an apiary of one hundred hives. At his death, however, his apiary amounted to only forty hives, and may not this be adduced as a proof that he had overstocked the particular district in which he lived?"

R. Huish, F.Z.A., London, 1844

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word articles, one about trees and "Bob's" book, while the other was a very useful article on insecticides and the honey bees.

While it is too early to judge the success of the project, we know from the letters we have received both from the recipients of our gifts and from the general public wishing to buy copies we had made some people at least aware of the need to plant nectar and pollen bearing trees, and what's more we only spent $30 of the $50 allowed.

It was also decided not to let the beekeepers off scot free, and they too had a pistol pointed at their heads. Combined with a social evening about 86 beekeepers and their wives were exposed to the full blast of the eloquence, ridicule and advice of Mr Challenger, the Reader in Landscape Architecture at Lincoln College, when he gave a truly shaking talk on the landscape and the environment.

Here already we can begin to judge the results, two honey houses, professionally landscaped, with another one in the pipe line. Many other beekeepers and wives have spent considerable amounts on trees and several including myself have enrolled for a course of lectures on environment at the University.

MURRAY REID formerly Apicultural Advisory Officer with the Department of Agriculture and now studying for his M.Sc. degree at Ontario Agricultural College in Guelph, continues his report on

CANADIAN BEEKEEPERS' PROBLEMS

A drop in the number of beekeepers was also noted especially among the smaller enterprises of the larger commercial concerns many had relocated their businesses in the western provinces, sold out or increased in size. In short, Ontario Beekeepers are being forced (like everywhere else) to get big or get out.

Perhaps of more significance to the industry was an attempt to establish the value of agricultural products that rely on the honeybee for pollination. Research in Ontario has shown that of the crops requiring pollination 63% could be attributed to honeybees. These crops had an estimated value of C$34,456,000, so the value of the bee industry in this respect was C$21,704,000. In the U.S.A. the percentage of crops requiring pollination is even higher, being nearer 80%.

Armed with this information the industry will make new representations to the Government for some form of assistance whether it be a price support programme, removal of tariffs on sugar for bee-feed or enforcement of tariffs to protect the local industry from cheaper honeys whether they come from the Western Provinces or the Northern States of the U.S.A. Whatever they ask for they must do so as a united body.

A similar survey in N.Z. would help the beekeeping industry receive the recognition it is due for its value to the agricultural industry as a whole. I think most people realise that bees are of more value to agriculture in general than apiculture in particular, but until values are reduced to one of dollars and cents our industry will be paid nothing but 'lip service'.

Honey Production of N.Z. and California Queens

N.Z. Queens were obtained through Alan Graham of Coaldale, Alberta and the California Queens from Homer Park. These were hived on April 26 and preventive feedings of tetracycline in Drivert were given immediately after hiving and again on June 3. Many of the colonies consumed the Drivert within 24 hours and it was felt that this was not as effective as antibiotics in sugar syrup.

Capped brood counts were made May 13, June 3, and June 25. Another examination was made on July 8-10 for swarm cells and disease. At this time 11 of 42 New Zealand colonies and 6 of 47 California colonies had EFB.

All colonies were weighed on August 19 as the nectar flow had ceased by that time.

TABLE I

COMPARISON OF NEW ZEALAND AND CALIFORNIA QUEENS

No. of colonies	42	47
First brood count (eggs per day) May	454	550
Second brood count	1001	1034
Third brood count	1440	1573
Yard 1 — honey production	105	133
Yard 2 — honey production	165	155
Production of colonies without EFB	147	147
Production of colonies with EFB	107	124

These results indicate that where there was no EFB the production of the colonies was similar and also stresses the importance of controlling EFB. The slight advantage of the brood rearing for the California stock did not manifest itself in the honey production. Possibly if the nectar flows were not so restricted because of drought, these results may have been different.

SIT. WANTED

Practical and experienced beekeeper, used to hard work and keeping bees the hard way, seeks situation in New Zealand with commercial outfit.

Single, aged 38 years and son of a farmer, 13 stone 7 lbs, 5ft 10½ins, a beekeeper for 25 years.

If you are in need of a conscientious, hardworking Englishman, please write airmail and tell me of the employment you have to offer:—

K. Coates,
50 Kingsway,
ILKESTON,
Derbyshire,
England

All replies answered promptly.

BUY

HIVES

Any number large or small wanted in the North Island.

Please write in the first instance stating price, where seen, condition and date of last inspection by the Department of Agriculture.

Full particulars to:—

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1,000 - 1,200 HIVES

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Excellent condition, Queen excluders, new Queens, no disease, strong and healthy.

Offers wanted

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C/o N.Z. Beekeeper

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Direct to retail trade. Honey house with all packing and extracting equipment. Ample room for full time beekeeper. Primary and secondary school bus at gate. Sound 3 bedroom dwellings. Finance available.

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OAMARU

SOUTH WAIKATO

250 hives for sale with sites or for removel. Excellent gear. Very reasonably priced.

For details please write:—

N.Z. Beekeeper
"GENUINE SELLER"
HONEY PACKING BUSINESS

30 hives with honey
2000 watt Pyretenax cappings melter
8 frame reversible extractor
4000 1 lb printed honey cartons
100's of supers, floors, roofs, nuc. hives, honey tanks, Queen excluders, etc.
$1,000 the lot or will sell separately

Write:—

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19 Birdwood Road,
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Phone: 699-994

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Orders for not less than one bale, accompanied by cash and stating railhead to which delivery is required, should be sent direct to:—

N.Z. WOOLPACK AND TEXTILES LTD.
P.O. Box 44, Foxton.

The National Beekeepers' Association

(For the advancement of the Beekeeping Industry in New Zealand)

'Better Beekeeping—Better Marketing'

SUBSCRIPTIONS

0 to 20 hives	$2.00		1001 to 1100 hives	$22.00	
21 to 200 hives	$4.00		1101 to 1200 hives	$24.00	
201 to 300 hives	$6.00		1201 to 1300 hives	$26.00	
301 to 400 hives	$8.00		1301 to 1400 hives	$28.00	
401 to 500 hives	$10.00		1401 to 1500 hives	$30.00	
501 to 600 hives	$12.00		1501 to 1600 hives	$32.00	
601 to 700 hives	$14.00		1601 to 1700 hives	$34.00	
701 to 800 hives	$16.00		1701 to 1800 hives	$36.00	
801 to 900 hives	$18.00		1801 to 1900 hives	$38.00	
901 to 1000 hives	$20.00		1901 to 2000 hives	$40.00	

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Free Cover for Association Members

All financial members of the Association are automatically indemnified against Public Risk claims up to $10,000 in any occurrence of injury or death to persons or livestock directly attributable to the action of the members' bees and arising from his or her negligence as the beekeeper. The cover is underwritten by the New Zealand Insurance Company Ltd and the premium met by the Association from consolidated funds.

THE N.Z. BEEKEEPER

This Journal is issued to all members of the National Beekeepers' Association and direct subscribers.
Literary contributions and advertisements must be in the hands of the Editor, Mr L. W. Goss, P.O. Box 3561, Auckland, not later than the 25th of the month preceding publication.
Nome-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

Quarter Page	$5.00	Per Inch	$1.50
Half Page	$9.00	Min. Charge	75c.
Full Page	$16.50	for each insertion.	

Honey bee colonies which become established in domiciles other than movable frame hives are commonly known as wild hives. Wild hives are a menace to beekeeping because they spread American brood disease (bacillus larvae).

When a wild hive becomes infected with brood disease it dies out, often leaving stored honey in the contaminated combs. When colonies from nearby apiaries rob the honey, they too become infected and have to be destroyed.

If, as often happens, a swarm occupies the infected combs of the dead wild hive, the new colony immediately develops the disease and the process is repeated.

The picture shows Mr C. M. Lory examining the combs of a dead wild hive in the wall of a derelict house in North Otago after the lining had been removed. The hive was infected with brood disease and it contained enough contaminated honey to infect many commercial hives. Five hives in a nearby apiary were found to be infected, possibly from this source.

Under the Apiaries Act 1959 property owners may be directed to destroy wild hives. In practice this is a job for beekeepers and apiary instructors. Apiary instructors are called on to do this work, but they cannot detect and destroy all the wild hives in their districts. Beekeepers can help by making the detection and destruction of wild hives a normal part of their brood disease control work. Every wild hive is a potential source of brood infection.

Photo: V. A. Cook

BOUGHTWOOD PRINTING HOUSE, North Shore