Registered at G.P.O., Wellington, for transmission by post as a Newspaper.

The New Zealand Beekeepers' Journal.

SEPTEMBER 20th, 1915.

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

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

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The New Zealand Beekeepers' Journal

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

No. 15 DUNEDIN. 3/6 Per Annum.

SPRING MANAGEMENT.

By R. C. AITKIN.

With regard to clipping the wings of any queens that have not already been clipped, it should be done with the first spring work when bur-combs are being cut off, and all made slick, so that the combs can be easily and quickly handled. But as it is not necessary that queens be clipped until the swarming season is almost on, I never spend any great length of time hunting if a queen evades me; still, the longer it is delayed when the colony is getting strong the harder the job.

In order to get somewhat of an approximate date or time when things should be done, I will suppose the honey flow when surplus and super work is to begin, June 15th (December 15th in this Dominion), each reader varying the times to suit location when applying the principles. And let me repeat that what I describe will be true of any location where the conditions are the same; but, if you have other factors, remember that just so surely as a mathematical problem is changed by bringing in a new factor or changing the relations of the same factors, so the change of order or number of factors with the bees will change results. The bee is not a reasoning creature as man, but follows instinct. The apiarist is ever a varying quantity—does things because of some whim or notion growing out of his reasoning faculties, and his action may be wise or otherwise—you do not know where to find him; but the bee you know where to its nature, and can correctly reason and analyse the problem.

Throughout this spring management the object sought after is the largest possible force of workers. I know there will be very few who will take issue with me and say it is possible to get too many bees in a hive before the honey flow arrives. Well, suppose we admit that in a given hive we may possibly get too many bees; the remedy is to use them elsewhere—there are always places where they can be added to strengthen weak colonies, or they may be made into new colonies, or in some way kept awaiting the flow. The cost of a bee is in its maturing or producing, and not in its maintenance after grown. For a June (December in this Dominion) flow in temperate-zone latitudes you cannot possibly get too many workers produced prior to the flow, so get as many as possible.

The question of well-bred stock as against poorly-bred needs no argument; there is such a vast difference between a stunted, skim-milked calf and a new-milk, well-fed one; the same principle in horses, pigs, chickens, and all our domestic

stock. Same thing also of poorly-bred farm crops of all kinds, and just as true of bees. A stunted, skim-milk queen cannot be the equal of a well-nourished one, both in the making of the queen in the first place and in her care while in service of egg-laying. But if you have the poor ones in the spring you must put up with them until you can remedy the defect—make the best of all queens in preparing for the coming crop season.

HOW TO GET THE LARGEST AMOUNT OF BROOD.

I have previously spoken of the fact that queens will start brood in January (July), more in February (August), and all should have some brood by about March 1 (September) in outdoor wintering, in latitudes of Denver, Omaha, St. Joseph, Mo., Chicago, and Indianapolis. In the early spring, and until the colony can begin to cover several combs, not very much can be done except to have the colony as warm as possible, plenty of stores within easy reach, but yet as much empty comb close in about the brood as the queen may be induced to lay in. How much she lays depends upon her vigour as a well-bred, strong individual; upon whether she be in her natural youthful vigour or failing with age; how well she is fed and coaxed as it were by the workers; upon the supply of pollen and nectar both in the hive and in the fields; and upon the bees' ability to forage and lead an active life. While the stores within the hive are good, yet they are not nearly so good as that which is being daily gathered from the fields.

I have seen many a colony with plenty of stores—yes, too much of them. Remember that brood is reared in combs where there is neither honey nor pollen, and when a colony has to uncap and move honey to give the queen room to breed they are honey-bound. At times it is well—yes, one of the best possible things to do—to have them move honey; the more honey a colony handles, either strictly within the hive or from without, the more brood will be produced, provided the queen is allowed plenty of cells in the right place as fast as she can and will use them. Right temperature, new pollen and nectar coming in just fast enough so the colony never gets much ahead (say two or three days' supply), yet are kept busy all day and every day, is the ideal condition which will give the greatest amount of brood. Approach such condition as nearly as possible, and you will see much brood, which means much working force.

But some localities do not furnish nectar and pollen early, or continuously, when we want the best results in breeding, and we may stimulate by artificial means. Just how far what is known as stimulative feeding can be profitably used I am not prepared to say. This kind of feeding is to give a limited supply daily or each alternate day; but this takes considerable time and care, and what is called "fussing." I have many times fed, and that lavishly, in the open air, but I never tried daily feeding. The colony must have enough at all times, but better a limited amount than too much if the brood-chamber is small; with a large chamber, that will hold lots of stores and still give the queen ample brood-room, then much stores do no harm. I am an advocate of large brood-chambers.

THE MANIPULATION OF STORES.

Your colony usually starts the brood-nest near the entrance. If the entrance be the sunny or warmest part of the hive, the brood will almost certainly be there. Now, if there be no nectar or pollen coming in sufficient to stimulate, it is best to cause the bees to handle honey within the hive; they ought to "get busy," for a busy colony is the one that "gets there" with breeding.

Open the hive, and you will find the brood in the front end of the combs, with usually honey, in the back end. If the colony has brood in, say, two combs, or even three, and about as much brood as they can cover and care for, just reverse these combs, putting the honey forward; this does not spread brood, but puts honey to the entrance; and they get busy moving the honey, and will put it back from the entrance. The colony will also stretch toward the entrance, both to guard and in getting outside; yet they will not pull from the brood faster than they can do so safely, but as fast as more comb can be covered toward the entrance it will be done, and occupied with brood. The moving of that honey has caused better feeding of the queen, which means increased desire to lay; has also fed the nurses better, and results in better feeding of broods, and so makes a faster and healthier growth of the colony. The extra effort in moving the honey produces more heat, because of the activity. This, of course, causes the consumption of more stores, but the honey returns later will pay by far better interest and profit than if you had kept the honey, or than to have sold it and put the money in the bank. Activity and good feeding are the foundation on which rapid breeding rests.

If my premises are correct in the foregoing, then it is most likely that stimulative feeding—that is, daily feeding by supplying feed from without—would not be profitable; but to cause the workers to load their sacs and handle stores is profitable; this latter I do unhesitatingly recommend, either by the method recommended above, or by uncapping stores making them run, or in some way cause the bees to load their sacs. Many say it damages a colony to manipulate, but I must differ, and say that proper manipulation is a benefit, for the very reason that it loads the bees, and the activity adds heat, and so aids.

So the foundation of success in brood-rearing is, first, strong, healthy queens, and such are obtained by breeding from colonies that show vigour, and the queens produced under conditions of proper heat, and well fed and nourished in their developing. After this, proper heat and active hustling, working condition of the colony—not too much stores nor too little, but the bees must be handling supplies. This is practically all there is to do until the harvest season arrives.

If your location is one yielding nectar and pollen practically throughout the weeks preceding the harvest, and especially the short period just immediately preceding when the colonies have become quite populous; and if the amount of nectar coming in is sufficient to cause the filling of brood-combs at the ends and along the top-bars, together with outside combs, a condition favouring swarming is likely to prevail.

Just at this period it is heat—a hive full of bees and great activity causing uncomfortable heat—nurses well fed, and feeding brood and queen well, the combs having few empty cells; with these factors you have swarm conditions, and many will get ready for the act.

HOW TO RETARD SWARMING.

I have just spoken of the brood-combs getting just about full, so that the queen has limited laying room; and of the activity of the colony, and somewhat uncomfortable heat-conditions. Abundant ventilation given at this time will remove one disturbing factor, and will hold part of the colonies, but not all. Give a set of dry brood-combs underneath the old one, and in this one put a comb having a little brood in it—give this at or near the centre. This is equivalent to ventilation, as it spreads the colony as two persons in a warm bed shifting to positions as far apart as possible, or taking separate beds on a hot night. It also gives both store and brood room, and will by all odds control in the great majority of cases. All this should be done before any queen-cells are started, yet, if cells are building, their removal with the changes indicated will, in most cases, relieve the bees of the swarming fever. But should the colony still show disposition to swarm, they should either be divided, by taking away some of the bees, or some of the brood, or both. The removed part may be taken clear away, and added to weak colonies, or made into new ones; or the queen may be put in that added chamber spoken of to go underneath with one comb of brood in it, and over this an excluder or a board with a hole in it, or a super between the two bodies; the idea is to make the brood-nest proper, which the queen now occupies, seem to be poor in both honey and brood, but specially little brood. If a board with a hole be used, the hole should be covered with excluding zinc. Also provide plenty of ventilation or shade so as not to "cook" the upper chamber in a hot sun. Remember, too, that drones may clog a small zinc; I recommend the use of regular wood-zinc slat honey-boards.

Keep these principles in mind and apply them, getting all the bees possible preceding the main harvest flow, and hold or keep these bees in some way as indicated herein, but get them if possible. And if you are so fortunate as to have conditions that will keep up the continued activity of the colony, and, above all, if you have them so that with the arrival of the main flow you have the brood-combs just about full of brood and honey, you should be happy indeed. I do not have such conditions, but if I did I should rear early queens, and make small nuclei, and certainly strive to have a large number of nucleus colonies that would have young queens laying by the time the harvest flow came. Such nuclei are the foundation for next year's business. Yes, by all means get these early nuclei, if your location and conditions will at all favour such work, and even go to extra trouble to produce conditions that will enable you to get them. The why for this, and their value, will appear later. Let me repeat and emphasise that early nuclei, when we can have good, well-reared queens—I say well-reared, not bred—will prove one of your very best assets.

SHIFTINGS.

(By J. S. COTTERELL, Waikato.)

Spring Management.—Get busy, and get the bees busy. Inspect all stocks for queen right and food supply, with a glance at one or more frames of brood to see if healthy; better not expose brood for examination unless weather is warm. If willow or other spring flowers are yielding, there are all the elements of natural stimulation. If you are not so fortunately located, then it is still necessary to stimulate, which can be done by making the bees shift their stores; get them busy moving honey, or prepared feed if short of stores. To get them to shift their stores, merely place one or more frames of honey behind a division board, separating this from their brood, and they will go to work transferring the honey to brood side of division board.

Aim to have the majority of your combs a solid block of brood, say, ten days before the main clover flow.

Watch the effect of stimulation on the queen, and if she is in any way failing in egg production (due regard being taken as to weather conditions and supply of pollen), then supersede her by re-queening.

Swarm Control, page 226.—Sure pop, friend Jacobsen, by your method you murder thousands of babies in their cells, and consequently so weaken the colony no swarming results. How? Why, by depriving the babies of water, one of the three essentials in all young bee life. All the water carriers have been trapped (switched) to the adjoining hive, and but few are likely to find the new back entrance. A strong colony from close observation will take up three parts water a week from a feeder, in addition to what they may bring in. Another thing, if the night temperature falls before bees have had time to hatch, the outside ranges of sealed brood will be chilled for want of bees to cover them.

Italian v. Black Bees, page 235.—I have had experience with both, and now stand by leather Italians, as they are better disease-resisters, and give me better returns. As to their robbing propensities, that's all right, if they take it off the other fellow; with all Italians in the yard, however, robbing is not noticeable, for the simple reason they are also good home defenders, and even a weak colony with a small entrance will put up a good fight against depredators.

Page 241.—Time of yielding of cabbage-tree and flax about coincides with this locality (Te Aroha), but clover starts yielding earlier than end of December, and finishes last week in January.

Swarm Control, page 241.—This will work, provided you can get the young queen mated, as colonies headed with newly-mated queens do not as a rule swarm that season. Why not give a laying queen in place of a cell, and make sure that colony is queen right? I for one should not like to carry a double equipment of covers and bottom boards in order to carry out the method outlined in this article.

Boosting Honey.—Good idea stickers "Eat Honey." The H.P.A. might make a note of this, and distribute some to its shareholders. When the H.P.A. gets well established in the

various centres, why should not the man in charge of depot in slack time do a house-to-house canvas for orders in 5 or 10-lb. tins, or any other style of package the buyer preferred? This, combined with judicious advertising, should greatly increase the consumption of honey in the Dominion.

Clover and Eucalyptus Honey, page 219.—For the information of "Critic," stringy bark was yielding honey at the same time as clover this past season in my locality. As to its being a benefit to clover, I am unable to judge. I did not, however, notice any darkening of the clover honey by the admixture. Clover honey stored in half-supers dated December had a peculiar but pleasant nutty flavour, quite different from that stored in January supers.

Open or Closed-end Frames: Which?—This has always been a bone of contention in the past—which was best for the welfare of the colony? I have obtained this past season and winter excellent results by placing four closed-end frames in the centre of hive, the balance being open ends, three on each side. Brood-rearing has practically gone on the whole winter in some of these central combs, with the result that colonies are in good shape this 1st September.

Queenless or Laying Workers.—On a cool evening after sundown when all colonies are quiet. and the entrances free of bees, go through the apiary, and if you detect any uneasy bees at the entrance of any hive, with bees flying away from it, or an entrance which should not now be more than three inches by three-eighths inch) congested with bees, mark that hive, and examine next day if possible, and you are pretty sure to find it queenless, or laying workers present. In the former case, introduce a queen by the caging method, and give a frame of hatching brood, or unite with a queen right colony. In the latter case, if worth saving, smoke in a laying queen by the A. C. Miller method, or scatter the bees to the four winds, to unite with what colonies they choose to enter, for you will never get them to accept a queen with laying workers present.

WAIKATO BEEKEEPERS' ASSOCIATION.

ANNUAL REPORT FOR THE YEAR ENDING AUG. 31, 1915.

As you are aware, Major A. E. M. Norton, D.S.O., managing director for the Bristol and Dominions Producers' Association, was in Hamilton on the occasion of our last annual general meeting, when a resolution was unanimously carried that his offer of an advance of 4d. per lb. net f.o.b. for first grade honey should be recommended to the favourable consideration of the members of this Association. Negotiations were opened up with the N.Z. Co-op. Honey Producers' Asosciation, who decided that they would enter into an agreement with the Bristol and Dominions Producers' Association to supply 100 tons of honey annually for three years, provided members of the various Beekeepers' Associations in New Zealand would support them.

We trust that as a local Committee has been promised by the N.Z.H.P.A. to look after district affairs, satisfactory ar-

rangements will be made with regard to the establishment of a depot in the Auckland District for the distribution of our produce during the coming season.

No general meeting of this Association has been held since the annual meeting on September 25th of last year. This has not been through any shortcomings of the officers, but has been the result of there having been nothing of a definite character to bring before a general meeting. The paramount question naturally has been the formation of a branch of the N.Z.H.P.A. in the Auckland District, and a very large amount of correspondence has taken place on the subject. We trust, as it is anticipated that Mr. H. W. Gilling, Chairman of Directors of the N.Z.H.P.A., will be present at the annual general meeting on September 1st, something of a conclusive nature will be agreed upon.

A Committee meeting was held on November 16th of last year to confer with the General Secretary of the National Association on the outcome of his mission to Taranaki.

A Committee meeting was held on March 22nd with the object of having a commercial display of honey at the Waikato Winter Show, which would be held in Hamilton on June 2nd to 6th inclusive. This was duly carried out, and we trust the result of the advertisement will conduce to a larger amount of honey being consumed by the public. It was, however, not the financial success it was hoped to have been.

In our last annual report it was pointed out that the prices then being obtained for our honey in the London market were far from satisfactory, seeing honey was being sold at 45/- per cwt., whilst some of our best was only obtaining 42/-. This state of things went from bad to worse, and some of the balance was sold as low as 29/- per cwt., the outcome being that over £30 is now alleged to be due in the aggregate from members out of the advances made on some of their consignments.

The honey exhibit which was staged at the Waikato Winter Show of 1914 was duly forwarded to San Francisco after a suitable stand in oiled rimu had been made for it. This Association is to be congratulated on its having been awarded a gold medal. The Department of Agriculture has been approached as to whether they would like it forwarded to the High Commissioner for New Zealand in London.

The hon. secretary of this Association attended ex officio as delegate the Beekeepers' Conference in Wellington, which was held on June 2nd, 3rd and 4th last. As will have been seen by the report which has appeared in the N.Z. Beekeepers' Journal, some interesting papers on bee culture were read. Nothing, however, of a controversial character took place. We would indicate, however, that one resolution was passed which will need consideration—viz., that relating to the registration of the National Beekeepers' Association of New Zealand, and if carried out will make it obligatory for members to pay their subscriptions unless they formally resign before the beginning of a financial year.

We would also draw your attention to the report of the Committee, appointed by the Conference, on "Extension Work," and we would lay stress on the fact that if this Association is to progress they must use their personal influence in

obtaining new members. We may say some hundreds of circulars have been distributed by this Association through the post setting forth the advantages of co-operation.

(Signed) J. S. COTTERELL, President.
W. H. TEED, Hon. Secretary.

N.B.—Since this report was issued, full returns up to date have been received of honey exported this season from the port of Auckland, as follows:—Special Grade, 247 cases; Prime, 261; Good, 43; Mfg., 29,—making a total of 29 tons. Included in the above are 68 cases from those who are not members of the National—viz., 19 cases Prime, 24 Good, 25 Mfg.

ANNUAL MEETING.

The ninth annual general meeting was held at the Public Baths, Hamilton, on Wednesday, 1st September, a good number being present.

It was decided that Mr. Hopkins' invitation to a "field day" at Ruakura Apiary be gratefully accepted by this Association, and that the date be fixed for Saturday, 29th January, 1916, this being Anniversary Day.

The election of officers resulted as follows:—President, Mr. J. S. Cotterell; Vice-President, Mr. A. B. Trythall; hon. secretary, Mr. W. H. Teed; Committeemen to act with the above, Messrs. A. L. Pearson, G. R. Willis, E. W. Sage.

Mr. H. W. Gilling, chairman of directors of the N.Z. Co-operative Honey Producers' Association, Ltd., attended the meeting, and presented a proposition for the setting up of a bottling depot, after which the following resolution was carried:—"That this meeting of the Waikato Beekeepers' Association views with pleasure the proposal of the N.Z.H.P.A. to establish a bottling depot in the Auckland Province, and urges all its members to give it their whole-hearted support."

FOUL-BROOD MATTERS.

A PLEA FOR GREATER CARE.

By "APIARIUS."

Beekeeping is becoming more specialised each year, and the casual keeper of bees growing less, and looking at it on paper one would say so too. Will disease be growing less, and with the last casual beekeeper will go the last of foul-brood. But it is not so. And if it is not so, why is it not so? There are those who say we will always have foul-brood, but why should it be so? We have the means of curing it, and the fault must be in the manner. We will eliminate the casual man for the time being, and deal with the specialist. And does he not often become the casual beekeeper in his method of dealing with foul-brood? Have you ever watched medical specialists dealing with infectious diseases?—sterilised instru-

ments, careful destruction of infected matter, sterilised hands, isolation. Yet the bacilli with which they contend are not more virulent than the bacilli of foul-brood. And how crude are the general methods of the beekeeper.

Considerable controversy has taken place over disinfecting hives, but you cannot err on the safe side. Scorching them out cleans them anyway. Careful treatment, which is the only sure method of curing and not spreading disease, should proceed as follows:—First, the mat on the frames. This may have honey on it, and should be disinfected or burnt; the precaution is worth taking; the hive body scorched out, and the frames and combs dealt with secundum artem. Now the bottom board. This is the most neglected, and, I consider, the most dangerous. The usual method is a scrape and a bump on the ground, where the accumulated debris of months is left lying for bees to forage among, gathering stray scales of wax and incidentally foul-brood scales that the hive bees have chipped off in their efforts to clean up cells. When treating a colony, the bottom board should be cleaned and scorched, and in the spring clean up all deposit on bottom boards collected and melted up or burnt. Now the bees. The ordinary shake method must be a sure spreader in any apiary unless a tent is used. The Clayton method may be the very thing, but failing that a tent should be used always. The hive tool is not above suspicion. After examining an infected colony, hold the business end in a flame for a few seconds. There is one other cause of infection which, I think, is the worst of all, and that is letting bees take honey out of the honey house, or out of anything else. Don't let the bees into the honey house; but, once in, don't let them out. Last year I fed up a colony with honey out of the tanks to get sections, with foreseen results—a colony this spring with scarcely a healthy cell of brood. I "Claytoned" it.

Now, with reference to inexperienced beekeepers, there is a fine opportunity for Branch Associations to do some good, practical work here, and incidentally increase their membership by offering to give experienced advice and assistance free to smaller beekeepers in examining and treating. This would give the Government inspector plenty of time to deal with the ones who did not want to be dealt with.

I forgot to state that no tinkering should be done with infected colonies when there was no honey flow. Carriers are too numerous at those periods.

Now that fruit-growing is becoming a big industry, it is time beekeepers took a hand to protect themselves from loss caused by injurious spraying. Several of the States of America have protective legislation. Several beekeepers have reported that they have suffered serious loss because their neighbours spray with poisonous spray whilst the trees are in bloom. In America a number of experiments have been conducted by the State Agricultural Colleges and Institutions, with the result that in nearly every instance protective legislation in favour of the beekeeper has been introduced. We invite contributions on this important matter.

Comments on Passing Bee Events.

By CRITIC.

["Critic" will in future look over each number of the Journal, and criticise any items which appear to need criticism. The criticisms are not undertaken in a captious spirit, but with the view of drawing attention to matters which may have been overlooked by contributors.]

Pages 243-4.—When commenting upon Mr. Robertson's suggestion re deep frames, I am made to say "Grimly" frames instead of "Quinby" frames, which were named after the late Moses Quinby, who used them.

Pages 235-7.—I don't think we should lay stress on what British beekeepers say concerning the merits of black v. Italian bees. The majority of them are so conservative and obstinate concerning any but their native black bee, to which they attribute all the bee virtues, that they have only too readily followed the promptings of the British Bee Journal, and condemned without trial Italian bees. So many silly things have been said about Italians by British beekeepers that it makes one smile. They have been blamed for introducing disease; they are not so suitable to the winters of Britain as the blacks; they are greater robbers than the latter, and the source of many other evils. Disease among bees was known to exist in Britain long before Italian bees were introduced. The fact that lots of Italians are wintered out of doors as well as in cellars in the Northern States of America and in Canada, where the winters are infinitely more severe than in Britain, is a complete answer to this objection; and as for Italians being greater robbers than the blacks, well, if there are any greater robbers than black bees, I am sure I do not know of them. This latter accusation, like the others, can only have arisen from novices; they could spot an Italian by its colour when entering the hive of a black colony, but they had not the knowledge to be able to detect when black was robbing black. The value of Mr. Herbert Mace's opinion in this respect—or in fact any other on bee matters—may well be gauged by his opposing bee legislation, favouring the use of straw skips with immovable combs, and starters of comb foundation.

Mr. F. W. L. Sladen, F.E.S. (now in the Government Bee Department, Canada), and a few others of an advanced type in Britain, cultivate Italians in preference to blacks. Mr. Baines would do well not to trouble himself about black bees unless for testing purposes, but they have already been well tested alongside of Italians in New Zealand.

Pages 239-40.—I must confess to not being able to grasp the signification of Mr. Hobbs' article on queen-rearing—whether he favours most the transferrence of larvæ plan a la Doolittle, or allowing the selected colonies to build their own cells as when preparing to swarm, and utilising these. I have read paragraph 3, page 240, two or three times, but have had to give it up—I cannot grasp it The last paragraph (page 241) interests me, because either Mr. Hobbs has made a mistake, which hardly seems possible, or his management entails a big

loss of bees. He says:—"By visiting each apiary every nine to eleven days, there are usually plenty of fine cells from breeding queens [built under the swarming impulse, I presume—usually avoided.—Critic.] to give round to hives that have been made queenless the visit before," etc. This means that colonies have been queenless during the height of the breeding season from nine to eleven days, or, take the medium, ten days. As queens are credited with laying from 2,000 to 3,000 eggs a day at that time, this must result in big losses. Take the lowest figure, 2,000. This, in the first place, would mean a first loss of 20,000 developing bees. Now, the cell given is, say twelve days old; there is another four days before the queen emerges, and another eight days before she commences to lay, in all twenty-two days—a loss of 44,000 bees, a fairly strong colony. It would be better to mate the young queens intended for superseding the others in nucleus colonies, and give laying queens immediately after removing the old ones. In this way only twenty-four, or, at most, 36 hours would be lost, or, say, from 2,000 to 3,000 bees.

Page 241.—Bees do work on that known as red (colour of the wood) ti-tree, but I have never seen them on the white. There is also, I am informed, another variety, known to some as "swamp" ti-tree, from which in some seasons the bees gather a good deal of nectar.

Thick honey has always been a difficult problem, and, as Mr. Nelson says, the best solution yet put forward is to turn the stuff into bees; at least I have found it so.

Page 245.—The shallow half-frames for extracting purposes that were boomed some years ago have not proved the success they promised. Two or three factors are accountable for this: the old style of foundation used to often break away in the full-depth frames, and there is no need for wiring the shallow ones. But we now have a far better class of foundation, which does not easily give way, and the awful bother of having frames of different depth in the apiary has completely put the shallow frames in the shade.

There seems to be some misunderstanding over the names of two plants; one is often named when the other is meant. I allude to tagaste (Cytissus proliferus) and tree-lucerne (Medicago arborea). The former is the great bee plant. I have never seen a bee on the latter in my district. Tagaste is still in blossom, and has been so for about five months, with the bees on it every fine day. If you apply for seed, make it plain that you do not want tree-lucerne seeds.

We congratulate the New Zealand Co-operative Honey Producers' Association in that they have secured in the worst honey season New Zealand has known sufficient honey to fill their export contract. Upwards of 106 tons have been exported to Bristol since the beginning of the year. In the next issue we will show an illustration of one of the fine window displays arranged by the agents of the Company, and will publish some interesting matter taken from the British Trade Reviews.

ADVICE TO BEGINNERS.

By ROBERT GIBB.

When I was apiary instructor for the North Island, the bulk of my correspondence was "Advice to Beginners," and I think that a little timely advice through your columns will do a lot of good. I will start out by giving my own experience. Twenty-six years ago I first got the craze. Mrs. Smith, who lived in a side street near our school at North Invercargill, kept bees in gin cases, and didn't mind selling a hive, so I badgered my father until he consented to buy one. We waited for a dark, warm night, and off we set with a hand barrow and a white sheet; we carried that hive home and duly deposited it at the head of the strawberry patch facing the north, with a nice hedge to the west and south of it—ideal conditions. Next morning we were all out bright and early to inspect the newcomers, but it was the fall of the year, and they were not very lively. I was rather disappointed, so I landed that hive with a lump of hard clay, and things seemed to brighten up considerably. As spring approached I decided to feed my new pets. I got a tin trough made. I laugh when I think of its size. It was eight inches long, one inch wide, and a quarter of an inch deep. I duly filled this feeder every morning with old honey that I bought from a chap who kept bees in the bush. We couldn't eat it ourselves, and being Scotch we didn't like to waste it, so we gave it to the bees, foul-brood germs and all. As spring advanced things didn't seem to be going on as they should be in that hive; in fact, there seemed to be less bees than in the fall, so, armed with my mother's veil and a pair of thick socks for gloves (I had never heard of smokers), I determined to investigate. I gingerly raised up the side of that hive and peered in. So far so good; I raised it higher, and would you believe me?—there wasn't a bee in it, nothing but a lot of old black combs, about a dozen dead bees, and some cobwebs. Meeting a friend of mine, Jim B——, one day, I told him my experience. "Look here, Bob," says he, "it was the spiders that killed your hive. I've seen spiders and mice kill scores." Now, Jim was the champion wild bee hunter in our part; tradition had it that he had taken two hives out of one huge black pine, and the bees flew round him in millions; Jim didn't get stung, but everybody within three miles did. I ventured to suggest that it might be foul-brood that killed them. Jim fairly scorched me with a withering look. "I tell you it was the spiders!"

That ended my first attempt at beekeeping. We removed to Clifton, and I bought two more hives off a Mr. Pollard, and though they didn't die, their swarms came off when I was at school, and when I came home they had decided to try a hollow tree. Now, by this time I had made an advance on my first attempt, for I was now the proud possessor of a Langstroth frame hive. I had traded a fine pair of homers for it to a friend called "Mac." Mac was a carpenter, and he knew a chap out at Long Bush who, he told me, had over a hundred hives, and measured his honey by the ton. Mac wasn't a wilful liar, but used to stretch things a bit, so I just put it down to one of his elastic yarns. However, I got the hive and

he got the pigeons. Mac was telling another mate what a good deal he had made, so I informed his friend that the pigeons were both cocks, which seemed to even up matters a bit.

Well, one swarm decided to stay, so I got my frame hive, but how was I to get the bees in; worse still, they were unspaced frames and no foundation. I had never heard of foundation, so I bundled in as many frames as I could jam (I think about fifteen), got on the other side of the apple tree, gave it a shake, and down went the lump of bees on to the ground right in front of the hive, and I cleared inside for the night. In the morning I surveyed the frame hive from afar; the bulk of the bees were clustered on the front of it, so I left them there, and in the course of a few days they were all inside.

Now, those bees worked all right, and when autumn came round I wanted some honey, and as the frame hive seemed pretty heavy, it and a box hive were doomed to the sulphur pit. I never was an expert at sulphuring bees; somehow or other I always made a bungle of it, and I don't care to explain all the procedure we went through; suffice to say that in the end we killed those two hives, but when it came to cutting out the honey, we decided that in the future we too would use ordinary boxes, and the chap at Long Bush could have our old Langstroth for the asking.

(To be continued.)

JOTTINGS.

Willows are in bloom in profusion in this district, and I hope to have a considerable quantity of honey to market from this source soon.—Temuka report.

We are getting fine bee weather now—no frost, and the bees coming on fine. Plenty of willows and all kinds of dandelion to follow.—Eltham report.

A considerable number of letters have been received during the past few weeks congratulating us on the excellence of the Journal. The Editor takes this opportunity of thanking the various correspondents for their kindly remarks.

The article published at the commencement of this issue, "Spring Management," was sent down by the President of the National, Mr. J. S. Cotterell, with the remark that it is his "slogan." We commend it to the careful attention of readers.

Protests against the increased railway rates on honey have been forwarded to the Hon. the Minister of Railways by Mr. F. C. Baines (secretary of the N.Z. Honey Producers' Association), and by Mr. R. W. Brickell (secretary of the National Beekeepers' Association). It has been pointed out that honey is now unduly handicapped by comparison with butter to the extent of nearly 80 per cent., and that the increases will unduly hamper our export scheme. The Minister has replied that the representations have been noted, and will have careful consideration.

Correspondence.

(TO THE EDITOR.)

Sir,—In reference to the letter in the correspondence column signed "H.B.," I have kept a dozen hives as a hobby for years, and have made many mistakes. It was a picture show which first set me going, and practical experience has taught me a good deal. I have two honey tanks made of inch boards. Each is 3 ft. long by 2 ft. wide and 1 ft. deep, with a partition across the middle at 18 inches. That leaves each compartment 2 ft. x 18 in. x 12 in. deep. They are lined with the best quality tin, and a 1½-inch honey tap for each compartment. When full of honey each compartment holds from 200 to 240 lbs. of honey, and is quite heavy enough for two men to lift up on to a bench or box in order to run the honey off into vessels. The partition not only strengthens the tank, but it is very convenient when extracting to run each day's extracting into a separate compartment. If the tank is thoroughly cleaned and kept in a warm, dry place when not in use, it will not rust, and will last a lifetime. Mine have been in use for the past six or eight years, and are still as good as new. The illustration you can cut out and forward to "H.B." It will give him a better idea what I mean.—I am, etc., H. H.

Kumara, September 6th, 1915.

(TO THE EDITOR.)

Sir,—As a subscriber to the Journal, I read with considerable interest anything bearing on the various methods of stamping out foul-brood, feeding and feeders, and all other items of vital importance to the would-be beekeeper. In the July issue, "Melissa" describes a method he adopts in regard to feeding for winter stores. Last season was very poor for nectar, consequently bees got no chance to gather sufficient to tide them over the winter. I secured division board feeders, but found bees were inclined to rob, although the entrance had been contracted as soon as the honey flow ceased. I fed sugar syrup in various strengths to all the colonies, from 1 of sugar and 1 of water to 1 of sugar and 2 of water (by measure), but it made no difference. I then tried feeding outside, but this only made matters worse. I then tried "Melissa's" method, but found great difficulty in getting the bees to take it, also to keep the sugar from becoming caked hard; robbing going on just as strongly as when syrup was fed, so that I think that it can hardly be the success claimed by the writer in the July number of the N.Z. Beekeepers' Journal. However, I have some very strong colonies now, with plenty of young bees and brood, also some very weak ones, although all fed the same, but the latter are, I think, in a great measure due to robbing. Perhaps some other beekeeper can give his experience in similar work.—I am, &c.,

Rotherham, September 8th, 1915. A. D.

(TO THE EDITOR.)

Sir,—So many have written to me re seedlings of yellow barberry, I thought it would be best to answer all their queries through the Journal. The specimens sent are seedlings that have been growing under a hedge, so in planting out choose a cool, shady, moist place to break them in. Plant fairly close—say, an inch apart, until the plants become acclimatised; then, when about 9 inches to a foot high, plant in the permanent hedge, about a foot apart. Rabbits are liable to eat them in the young stage, and stock sometimes touch them, too. It is not injured by frost, but the flowers that are out are affected by it. My bees are working strong on it to-day.—I am, etc.,

West Plains. R. GIBB.

P.S.—A correspondent asks if lilac is good for bees.——No, only for humble bees, as the corolla of the flower is too deep for the honey bee's tongue.

(TO THE EDITOR.)

Sir,—Replying to "Critic's" remarks on swarm control by use of the Hand floor board as advocated by me, I desire to say that he is entirely in error as to it being a modification of the Alley and Pratt systems. Before hitting him too hard, I should like to know who he is. If he will carefully read my remarks again, I think he will find the method simplicity itself. Ten minutes per colony is all that is required for a whole season, and if anyone can give us a shorter cut, then by all means let him cut in.

In my next article I propose to give a method which will prevent the bees contracting the swarming fever at all, and at the same time increase the honey crop at least 25 per cent.—I am, etc.,

Little River. C. A. JACOBSEN.

["Critic" will not mind how hard you hit him, Mr. Jacobsen, but we cannot however, disclose his identity. We look forward with pleasure to your next contribution.—Ed.]

(TO THE EDITOR.)

Sir,—Regarding the article forwarded by Mr. F. C. Baines from "British Bee Journal" and comments thereon, there is a disposition among English beekeepers to favour blacks before Italians. It may be "insular prejudice"; it may be that the climate does not suit them. At the same time, while other things are not equal, we must remember that our Italians are the Americanised strain. Probably the Italians as we know them can be convicted on several of the counts, but they vary much among themselves. They are not all quiet, and the quiet ones are not always quiet, while the crossbreds are cross. My bees are from pure-breds to anything. I breed from pure-breds, and eliminate others as they show unfit. As robbers Italians are not all bad, but some are very bad; the bright golden, I believe, the worst. At anyrate, their depredations are more conspicuous. Their disease resistance does not apply to American foul-brood, and their liability to contract it is in

direct proportion to their robbing tendencies. But they are honey gatherers. I have had a black colony equal the Italians, but I have never been in doubt about the general average. And in spring the clean bottom boards are under the Italians.

If I am not intruding, "Critic's" question to Mr. Jacobsen can be answered. The flowering of the eucalypti varies with localities and with season. The Eucalyptus globulus commences to flower any time from July till November. The season before last in this locality it commenced during November, and flowered profusely into January, along with clover. Eucalyptus gumnii flowers in autumn with late clover. Last year nothing flowered.

"H. B." asks re tanks. A good tank is a circular one. Four feet high and 3 ft. 6 in in diameter will hold a ton. Tinned steel is best; galvanised iron cheaper. It does not want casing. Long, shallow tanks are an abomination.—I am, etc.,

APIARIUS.

SUBSCRIPTIONS.

The following Subscriptions have been received during the month:—Messrs. R. Beattie, F. Burnley, H. Benton, D. Cameron, J. G. Donald, M. J. Dobbing, J. D'Arcy, J. Froggart, H. R. Penny, R. C. Groome, A. Gardner, F. Hemmingsen, E. J. Kendrick, G. Lucas, J. Gordon, I. McCall, Chas. McPherson, H. McCarrison, C. A. Oldman, A. Potts, C. A. Pope, W. Plummer, M A. Penny, Mrs. J. D. Press, J. Rentoul, S. C. Rhodes, S. Svendsen, Miss Shepherd, Messrs. Geo. Stevenson, A. W. Westney, F. G. Ward, W. H. Winter, G. R. Willis, W. Walker, Mrs. Wadsworth.

Printed and Published by Stone, Son & Co., Ltd., Dunedin, for the N.Z. Beekeepers' Association. Sept. 20th, 1915.