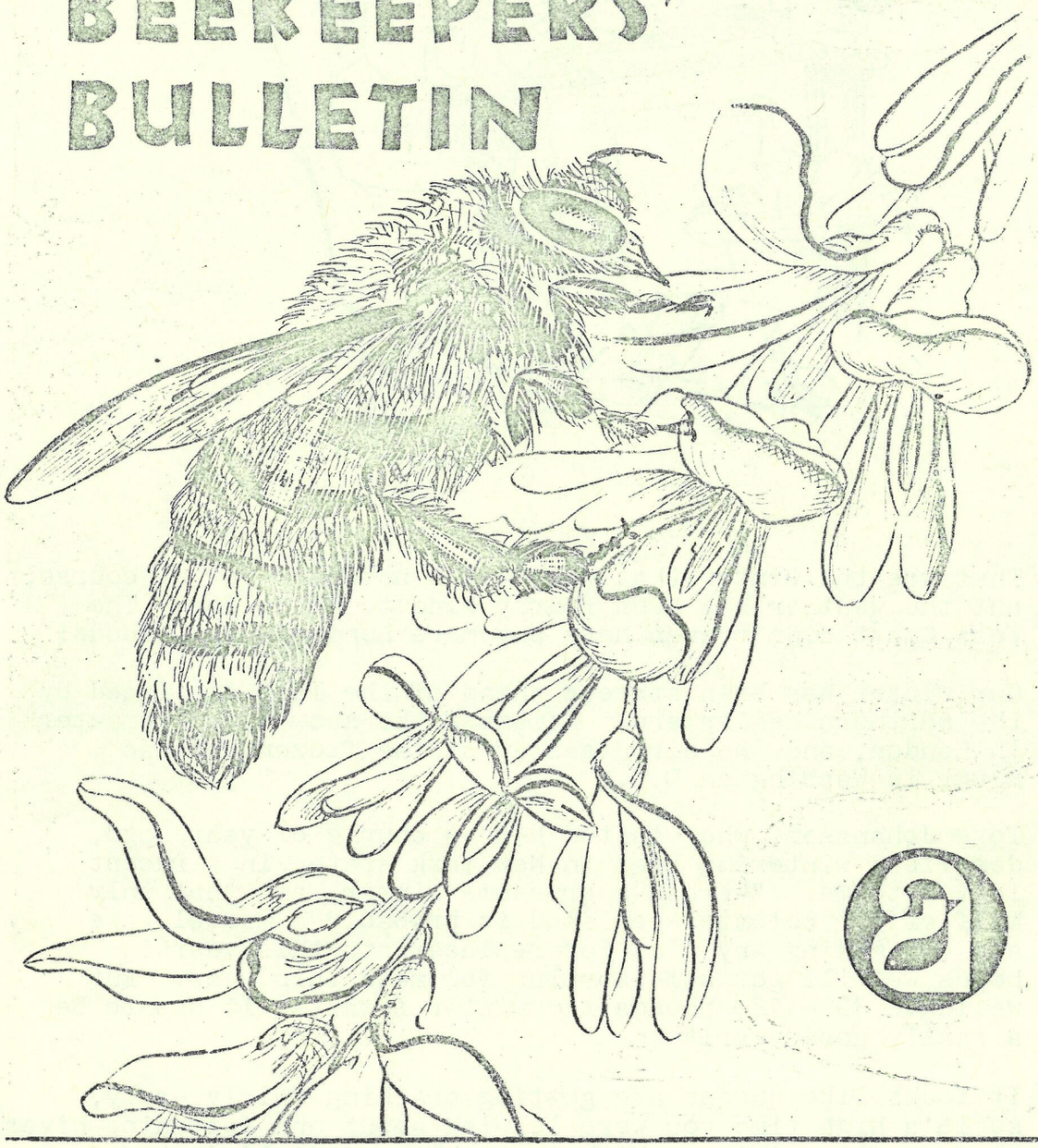
THE BEEKEEPERS' BULLETIN



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Volume 4 Number 4

August 1982

That was the winter that was. It's not over yet of course, but the weather has been fairly kind to us so far. The West Coast didn't even have any more hundred-year floods!

Our winter has been streets ahead of the last one faced by the northern hemisphere. Remember the snow-bound commuters in London, and the air disaster at the frozen Potomac River in Washington D.C.?

Toge Johansson, who visited here a couple of years ago, described wintering bees in New York state, in a recent letter to me. "We had a gruesome winter, and that only half of our colonies perished is probably a marvel. We are not making any nucs for replacements this year in hopes we will get some surplus for mead this year. But we leave 80 - 100 pounds for winter feed, so it has to be a really good year!"

It looks like queens are getting cracking fairly early, so it's high time you were leaping about and fattening hives up for cell raising. With the number of field days and courses that I've held on queen raising over the past couple of years you must all be pretty familiar with techniques. Yell out if you want one in your district.

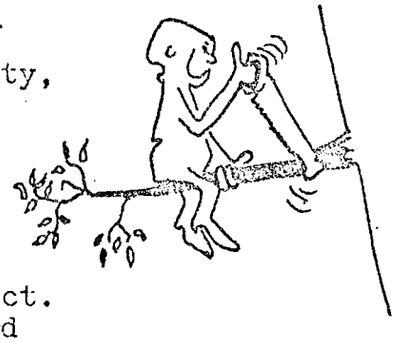
During your inspections you might well find some brown-and-ropies that you wish weren't there. Please remember to report all B.L. promptly, as this helps MAF put together the jigsaw puzzle of disease outbreaks. You should also not hesitate to report hives that you suspect are unregistere This information is treated confidentially of course.

I will be training some more MAF part-time inspectors this season to give us wider insepction coverage.

SAFETY SENSE

A new season is just around the corner, and it might be time to turn over a new leaf as far as safety goes. An accident or injury at the wrong time could cost you a lot of honey, and you can be certain that even if you do manage to get something out of the ACC, it won't cover anything like your loss.

There's no substitute for care and attention. The need for road safety, looking after your back and the futility of burning down your own honey house are all well known, but here are some suggestions for little things closer to home.

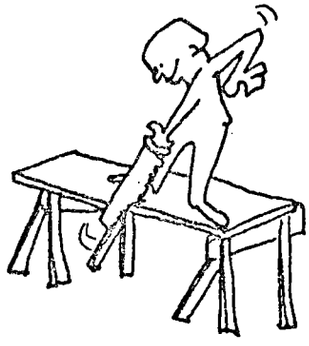


- Paraffin dippers deserve respect. Have a tin cover/draining board which can be quickly put over the vat if the wax catches alight.

- Have a bucket of water reasonably handy in case of burns to your body (but remember not to get flustered and throw it on the wax by mistake).

- Tell someone exactly where you are going when working out-apiaries. A map with yards marked is useful if someone has to come and find you.

- Watch uneven ground and unfilled post holes in apiaries. They are good at producing sprained ankles.



- Be careful with chemicals; cyanogas, petrol, benzaldehyde, weedkillers, carbaryl and so on. Keep them locked away when not in use.

- Cover belts and gears in your honey house.

- Be extra careful with circular saws and chain saws.

- Don't stand on old bee boxes to reach something. They've usually been thrown out for a reason.

- Don't tip smoker fuel out onto the ground. I've been in an apiary where all the grass was burnt out from careless use of a smoker. The hives, and the thousand acres of tinder-dry peat around about, survived ... just.

- Keep your smoker in a big biscuit tin or an old amunition box. You wouldn't be the first beekeeper to burn the tray off his truck.

- Insurance is no substitute for safe practices, but be insured anyway. And watch out for little barbs in the policy, like definitions of "floods" that include water damage in sheds but not overflowing rivers in the field, the Earthquake & War Damage Commission deducting depreciation from the value of hives (which the tax department has never allowed), or those innocent-sounding words "subject to average" (all real cases).

- Aim to be the oldest beekeeper around, not the boldest.

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BEEKEEPING PAMPHLETS

Two new beekeeping Aglinks (MAF pamphlets) have just been published. They are:

FPP 529 Beekeeping, nectar and pollen sources, summer/autumn/ early winter

FPP 530 Beekeeping, nectar and pollen sources, winter/spring/ early summer

If you're asked by a farmer for several dozen ideas about what to plant on the farm, you've got no excuse for not having a ready answer!

Aglinks are available free of charge from any MAF office.

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PATERSON CREAMER

This little machine was designed by Roy Paterson of the Department of Agriculture in the mid 1950's. It is an agitator which improves the spreadability of granulated honey, and gives it a smooth texture. If anyone is interested in making one of these, I have copies of the original plans (courtesy of Oamaru office) and an article describing its use.

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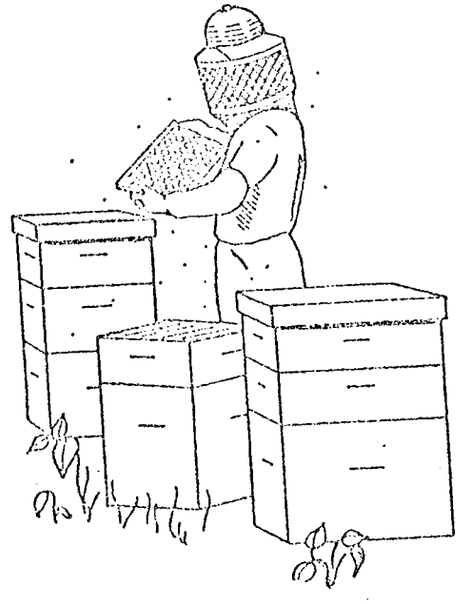
REGISTRATION

Some time ago I mentioned in this newsletter that the apiary registration system has changed. The most obvious effect of the change to you is in the annual disease inspection statements. This cuts down the amount of writing you have to do, and the amount of typing we have to do. You now get a photocopy of your apiary lists, to alter where necessary.

But another change is that the registration forms and disease inspection statements are handled by clerical staff in this office. I don't ever see them, unless they report BL. The clerks don't know you, and what might seem obvious to you may not be at all apparent to them.

For instance:

Mr & Mrs A start beekeeping. One day when Mrs A is in town she trots down to the MAF office to register their apiary. Fine. One apiary is registered in the name of Mrs A and an ID number issued. When they establish a few more apiaries, Mr A registers them. They wonder why Mr A is issued with a new number, and gets stroppy phone calls when he doesn't put in a separate apiary return for Mr A.



Or:

Mr B has a small beekeeping business. The small amount of honey he packs for gate sales goes out under the name "Timbuktoo Apiaries", which he inherited when he bought the business. Mr B wasn't thinking one day when he registered a new apiary, and put down "Timbuktoo Apiaries" as the owner's name.

Imagine his surprise when next year he received two disease forms. One was for Mr B, K 41, the owner of 20 apiaries and 400 hives. The other was for "Timbuktoo Apiaries", K 351, the owner of 1 apiary and 25 hives.

This creates confusion for the clerical staff as well as for yourself. If you want to change the name of your business, e.g. for bringing in a partner, that's fine. Just make it clear that it is a permanent change, and that "Mr & Mrs C" corresponds to the former "Mr C". Please remember to be consistent in what you call yourself when registering new apiaries.

CAPPINGS MELTERS

More on Norman Finlay's hot water cappings melters, mentioned in the last issue. I said that Murray Reid was writing an article on it for the "NZ Beekeeper". He did, but unfortunately it was held over until the September issue because of shortage of room.

If you're interested in building one, that article will contain more details and better diagrams.

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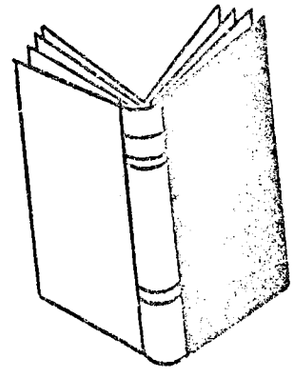
BROOD DISEASES BOOK

"Honey bee brood diseases" is a richly-illustrated booklet on important brood diseases. It could be the best ten dollar's worth you've ever had.



The book is 32 pages long, and contains 26 colour prints. Diseases and conditions covered are American foulbrood and European foulbrood (as they are called overseas), sacbrood, chalkbrood, stonebrood, drone brood in worker cells, laying workers, chilled brood, and Varroa. A chart comparing characteristics of these is also included.

This book would be invaluable for showing disease symptoms to an employee, a hobbyist beekeeper, or even for brushing up your own eagle eye.

English edition is $US 9.95 (post paid) from:

Wicwas Press
425 Hanshaw Road
Ithaca
New York 14850
USA

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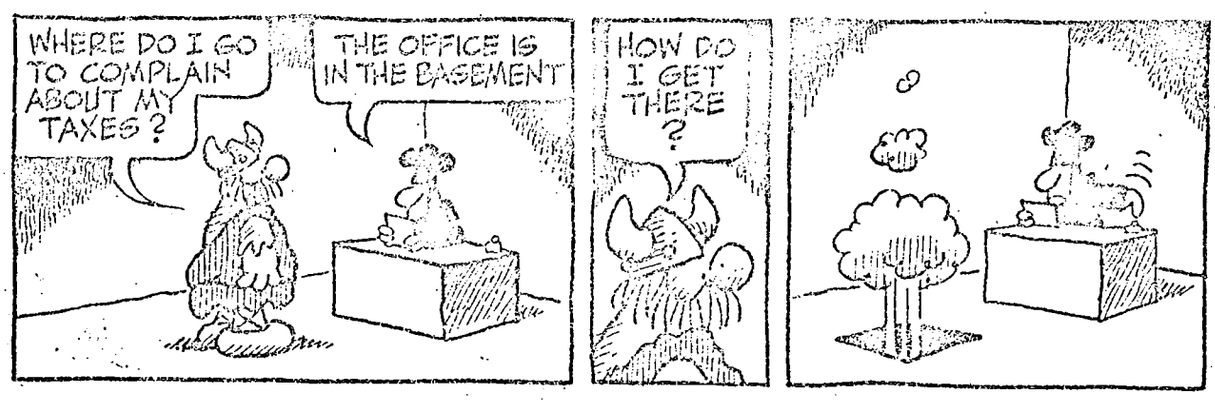

PLAYING MUSICAL JOBS

A "fugue" in music is a composition, in which a short theme or idea is used to start the piece of music. This theme leads into another one, which in turn is taken up by another one, and so on. Psychologists use this concept when they talk about "fugue behaviour".

A reader sent in a piece about farmers organizing their day's work, and I've changed it a bit for beekeepers.

"There is an old story about a beekepper who told his wife that he would take a load of supers out to the river apiaries next day. In the morning he went out to check the oil in the truck, and found that it was low. So he went to the storage shed to get some more. On his way there he passed the metalex bath, and took out the bundle of hive parts that had been soaking overnight. There were no more to put in, so he popped into his office to write a note to remind himself to send away an order. As it happens, on the way he passed some boxes of honey cartons. That reminded him that the creaming pump had to be turned off, so he went to do that. On the way he picked up some sacks to throw on the truck later for smoker fuel. He went to put those on the truck ....."

Remind you of anyone you know?

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FROM MY DIARY ....

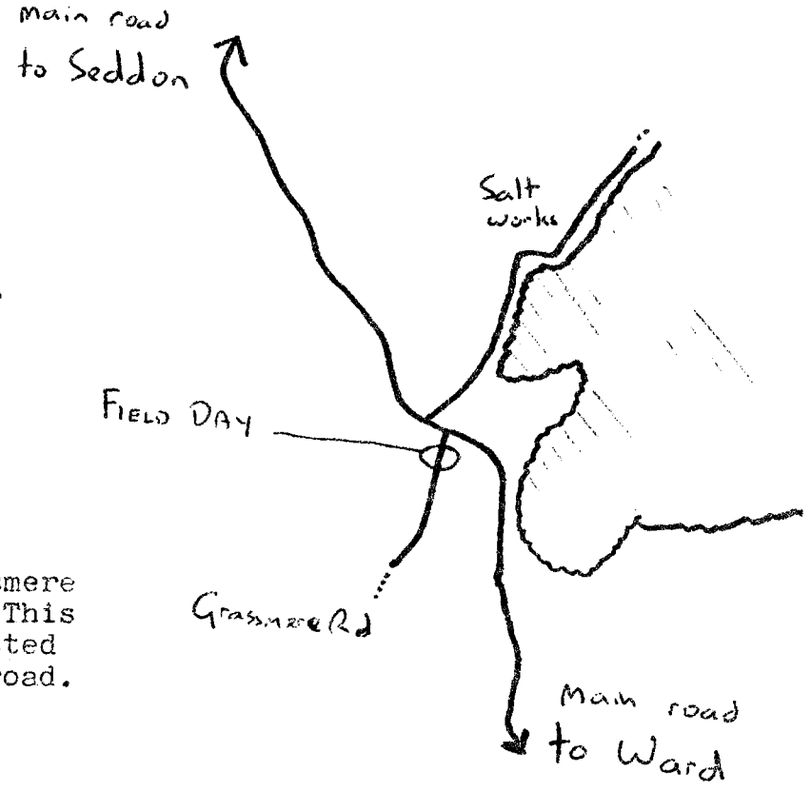
- Seddon/Ward field day

  Some new beekeepers in that area have asked me to run a field day on spring management. This is not intended to compete with the Marlborough NBA field days.

  Date - Wednesday 22 September

  Time - 10 am - 2 pm

  Venue - F. Jones, Grassmere Road, Seddon. This will be signposted from the main road.



Subjects - inspection of hives, spring checks, feeding disease.

Bring - Protective clothing, lunch

Wet weather - ring MAF's Blenheim office (BN 87369) for details.

- Bee diseases meeting

Date - Tuesday 21 September (evening)

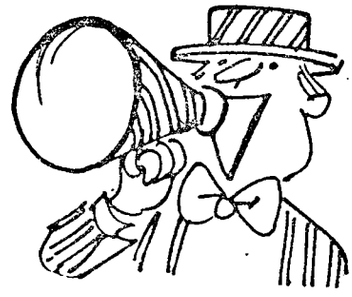
Subject - I will be covering a wide range of honey bee diseases, particularly AFB.

This is a Marlborough NBA meeting. Details of venue and time will be advertised in their newsletter, or contact Craig Deans (Waihopai Valley 825) for details.

- Queen rearing field day

Date - Saturday 16 October

Subject - Queen rearing. We will look at selecting stock, setting up starting and finishing colonies, grafting, etc.



Details also from the Marlborough NBA.

- Massey University beekeeping course

Massey's course for beginners will be held this year from 17 to 19 November. It is a three-day course (and evenings too), covering all aspects of domestic beekeeping. Field trips are made to apiaries and honey houses.

Enquiries to: Mr E. Roberts
Agronomy Department
Massey Univeristy
Palmerston North

- West Coast NBA field days

Dates and venues for the forthcoming field days will be arranged at a meeting in Greymouth on 12 August, so details will not be available before this newsletter goes to press.

For further details contact Ralph Glasson (Dobson 809) or Heather Detlaff (Ross 118).

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FINANCIAL MANAGEMENT SEMINAR

Havin got me to Greymouth to run this seminar, the Coasters were not keen to let me go. Next day all roads to the outside world were blocked by snow and ice, although I was allowed to go home after a couple of days!

The seminar was well-suppo rted by commercial beekeepers - as one of the guest speakers said "I don't know that there was anything like as many people involved with beekeeping on the Coast".

We looked at cash flow forecasting with computers (and electric kettles), the old perennial taxation, accounts, legal matters, insurance, and forward planning. A dinner and social evening later switched our attention from things cerebral to things gastronomic. A very successful day, thanks to the support of the beekeepers.

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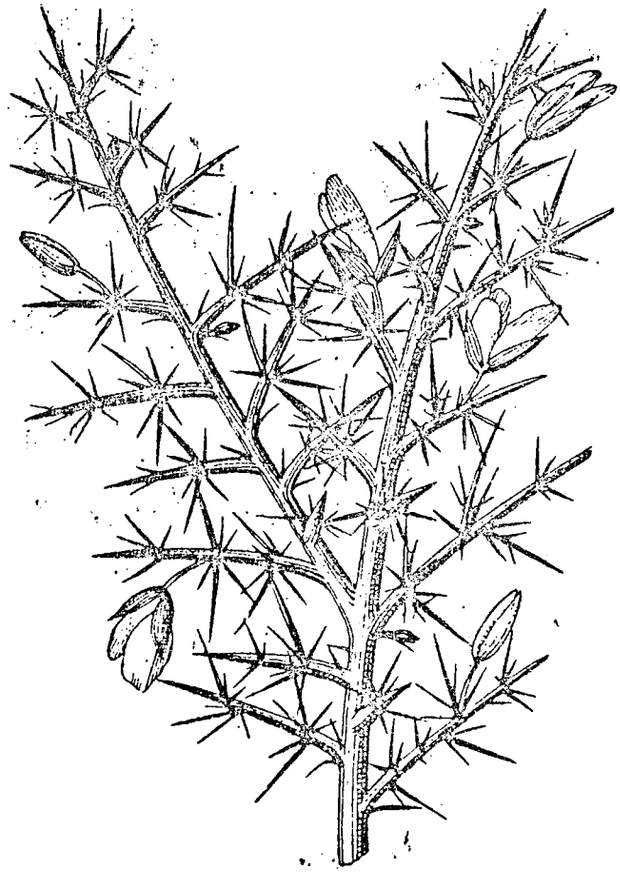
WEED CONTROL IN APIARIES



One man's weed is another man's livelihood. In no part of agriculture is that truer than in beekeeping - lists of nectar and pollen sources often read like the "ten most deadly enemies" schedule of noxious plant officers. Weeds around apiaries can be very useful - providing shelter as well as bee feed.

But enough is enough. Too much growth in a yard creates a lot of problems. Access is one, and I've seen hives that you can locate only by finding the flight path in and out of a blackberry clump. Even in less extreme cases, working hives can be made difficult. I've had too many bad experiences with hives near a barberry hedge - moving backwards while bent over a hive can be exceedingly painful.

Too much weed growth is also detrimental to the bees. Having grasses and other weeds growing up around hives not only rots out boxes and floorboards quickly, but puts a lot of stress on a colony. Growth at the entrance also slows down bee flight.

There are quite a few different ways of controlling weeds. An old concrete pad can make an ideal apiary site, but these are pretty rare. Some people put sheets of tin or fibrolite down in front of hives, and while they do keep the weeds down, that's not practical on a large scale. Putting the whole hive on a sheet of t that it wobbles and rocks as you are working it is one of my pet hates.

Weed eaters may find a place in the apiary, especially if you've just got one for Christmas and want to use it a lot. Most beekeepers use some sort of chemical control - either spraying with a broad-spectrum herbicide in spring and autumn, or using a residual herbicide.

Common broad-spectrum herbicides include; the phenoxys, such as 2, 4-D and 2,4,5-T; diquat and paraquat; and the newer Roundup. Phenoxy compounds kill broadleaf weeds, as well as grasses and brush weeds. Be very careful if you are using these near crops, as drift can cause damage at some distance.

Paraquat and diquat give control of most weed types, but not for a very long period. They are also extremely toxic to humans - there is no antidote for accidental poisoning.

Roundup is a newer herbicide which gives good systemic control of a wide range of weed species. Control is long term, the compound is relatively safe to humans.

Most herbicides do not pose a threat to bees. Provided reasonable care is taken (not to spray directly into hive entrances, for example), no mortality should result.

Commonly used residual herbicides include Permazol-SDA (a spray) and Prefix granules. Heavy application of salt to the ground will also provide long-term weed control.

A small hand-operated sprayer (either garden-type or back-pack) is usually quite adequate, for use during spring checks and wintering down. Knapsack motorised sprayers, for a much greater cost, will also do the job.

Weed control in your apiaries is an important part of beekeeping management. It is not necessary to apply the "garden mentality" to out-apiaries, but acceptable weed control is a sign of a thoughtful beekeeper.

Disclaimer

Mention of any proprietary product is for convenience only, and does not imply recommendation by MAF over similar products not mentioned.

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POLLINATION BOOM

With the explosive increase in pollination that's being talked about in this country, it is interesting to look at a similar boom in the States. Almond plantings in California (the main area for this crop) increased from 90 000 acres in 1960 to 330 000 acres in 1981. Pollination requires 1½ - 2 hives/acre, and the rental per hive rose from $3 in 1960 to $18-26 in 1981.

A definite shortage in hives began to be noticed in the late 1970's. Gorwers had to plan well ahead to secure hives, and beekeepers had the luxury of choosing their customers. As time went on, of course, beekeepers outside California began moving hives in.

The situation is now reversed - beekeepers have to work hard to obtain orders for almond pollination. Some out-of-state beekeepers moved hives in without having firm contracts, and left without renting the bees out. That's painful for those who had already counted (or spent) their pollination money.

To compound the problem, the almond industry itself is suffering a decline, with many planned plantings not going ahead. I'm not saying that this will happen here, but it is worth remembering that even in California, all that glitters is not gold.

Traynor, J. 1982. California almond pollination - the boom is over.
American Bee Journal 122 (1):42-43

VALEDICTORY

Graham Walton, Chief Advisory Officer (Apiculture) for the past four years, is transferring to another job. He will be taking up another CAO position, that of Chief Advisory Officer (Extension). This is a new position, and involves advising the directorate on, and being involved with, extension (advisory) work in all fields of agriculture and horticulture.

I understand from Graham that no new CAO (Apiculture) will be appointed. Matters requiring attention will be delegated to existing field staff.

I'm sure that you will all join with me in wishing Graham well in his new job.

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FACTS AND FIGURES

The size of the beekeeping industry in my apiary district took another leap forward over the past year. Hive statistics for the Nelson apiary district at 31 May 1982 were:

529	beekeepers	(up 12% on last year)
1 724	apiaries	(up 21%)
17 557	hives	(up 18%)

Although some beekeepers are quick to accuse the Ministry of encouraging the "proliferation of hobbyists", the fact that hive numbers are increasing at a faster rate than beekeeper numbers indicates a swing towards a greater average number of hives per beekeeper over the past 12 months.

Beekeeping in this district is buzzing. Since coming to Nelson four years ago I have seen these increases in apiary statistics:

60% more beekeepers
63% more apiaires
44% more hives

National increases in that time have been 47%, 22% and 20% respectively. There are now over a quarter of a million hives in the country for the first time - 253 605, up from 238 097 last year.

FROM THE BIG BEEHIVE

Some changes in the law that might affect you:

* "Road User Charges Amendment Bill"

  ($1.05 Government bookshops). This doesn't eliminate the charges (unfortunately) but sets out the charges by referring to the vehicle type numbers rather than by licensing category as in the past.

* "The Accident Compensation Motor Vehicles Levies Order 1982" (35c copy Government bookshops). This became effective on July 1 and applies to tractors, farm trucks and self-propelled agricultural machines. These are all liable to a $5 levy.

* A change to the Health Act effective from 1 July removes the requirement for separate toilets where a few employees of both sexes are employed in food premises. This does away with the absurd situation I have seen in some honey houses, where two (expensive) toilets had to be put in for 3 or 4 staff. For those who have already had to do that, sorry!

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THERE'S A SILVER LINING IN EVERY CLOUD ...

Things are not always as bad as they seem. One of the newest bogeys in U.S. beekeeping is the increasing use of micro-encapsulated insecticides. Put inside a little starch ball, the insecticide is very safe to use (for humans), and has slow-release properties. Unfortunately the micro-capsules are collected by honey bees with pollen, and the slow-release insecticide inside the hive doesn't do the colony much good.

The micro-encapsulation technique has benefits for beekeepers, though. Scientists at Beltsville, Maryland, are using it to make pollen substitutes more attractive. It is the attractiveness of a diet which stimulates bees to start eating, not its nutritional value.

A pollen substitute of whey and yeast was made attractive by adding chloroform extracts from natural pollen, encapsulated in a starch matrix. The extract from natural pollen made the diet more attractive, and colonies fed on the mix reared 2½ times as much brood as those fed on whey/yeast only, because they were "tricked" into eating more. The bees fed on substitute plus attractant reared as much brood as others fed on natural pollen.

Herbert, E.W.; Shimanuki, H.; Shasha, B.S. 1980. Encapsulation of pollen attractants for honey bee, Apis mellifera L. diets (Hymenoptera:Apidae). Journal of the New York Entomological Society 88 (1):73-74.

Another unexpected spinoff for beekeeping comes from the new group of insecticides known as pyrethroids. These are chemicals synthesised in the laboratory, which are similar to the natural pyrethrins found in ordinary fly spray.

Pyrethroids are very toxic to honey bees when tested in the laboratory. It would appear to follow that they are very toxic to bees in the field, but this is not the case. It has been found that pyrethroids actually repel honey bees, and so keep them away from crops which have been sprayed.

Shell Chemicals carried out tests in France last summer, applying a pyrethroid to a flowering rape crop. On the day of spraying, mortality in test hives on the site increased, but dropped back to normal levels the next day.

By contrast, a crop sprayed with parathion had approximately ten times as much mortality as pyrethroid-sprayed crops on the day of spraying, and deaths continued at a high level thereafter.

Spraying with the pyrethroid actually reduced flight activity in the test hives. This slowly returned to normal over about three days.

An American researcher has found that applying small amounts of pyrethroids to flowering cotton and lucerne crops (0.1 - 0.2 kg/ha) keeps bees away. Adding a pyrethroid to other insecticides reduces bee mortality by 50% to 80%.

The use of integrated pest management strategies such as this could help to protect honey bees from pesticides.

Shires, S.; Debray, P. 1982. Pyrethroids and the bee problem. Shell Agriculture May 1982 1-3

... AND A CLOUD IN EVERY LINING?

Queen substance to control crop pests - that's the latest from Russia! One of the pheromones in the queen substance, called 9-ODA for short, attracts drones for mating, stimulates mating, attracts workers to the queen, and stops queen cell construction by workers. It also acts as an "oral contraceptive", by inhibiting development of ovaries in workers.

It appears that this contraceptive works on other insects too. A pest on grain crops in the USSR is known as the noxious pentatomid, Eurygaster integriceps. The pheromone

9-ODA can by synthesised in the laboratory, and when a very dilute solution of it is sprayed onto wheat which is being attacked by the noxious pentatomid, some startling things happen. Development of the insect takes over three times as long as normal, the egg-laying period is restricted to one day, and only half as many eggs are laid.

Shaposhnikova, N.G. 1981. Effect of 9-oxo-2-decenoic acid on the noxious pentatomid. Zashchita Rastenii 5:30.

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The bumble bee is oddly wrought
Aerodynamically it ought
To find it quite impossible to rise
But bumble bees don't know the rule
For bumble bees don't go to school
They flies

Joyce Greenfell

****

Definition of an expert. The word is derived from "ex", meaning has-been, and "spurt", coming in little drips.

NEW POLLEN DIET?

A possible new pollen substitute is being tested on the West Coast. It is a byproduct of the milk industry, called lactalbumin. Chemically it is very similar to egg whites.

Dr H. Shimanuki of the USDA at Beltsville, Maryland, last year tested yeast/lactalbumin pollen substitutes. Caged bees in the laboratory fed lactalbumin/yeast reared as much brood as those fed fresh pollen, and the diets were adequate for brood-rearing for 14 weeks.

There is not enough evidence yet to recommend this product. However, I will keep you informed of future developments and sources of lactalbumin.

Herbert, E.W.; Shimanuki, H. 1981. Cholesterol and salt requirements for brood rearing by honey bees fed a pollen substitute. American Bee Journal 121 (8):572-574.

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