

PROTECTING EVERYONE'S INTERESTS

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Beekeeping is a long established industry in New Zealand with commercial beginnings dating from 1888. Commercial kiwifruit growing, on the other hand, is really a phenomenon of the past ten years. However, in that short time it has come of age and in terms of nett worth and export earnings far outweighs that of the beekeeping industry.

But, like most businesses the kiwifruit industry has an achilles heel, the kiwifruit plants need cross pollinating and at the moment anyway, honey bees do most of that. In short, kiwifruit growers need the beekeepers or bees but beekeepers can exist without kiwifruit.

It is an unfortunate fact of life that when commercial fruit orchards or gardens move into an area the commercial beekeeper has to move out, sooner or later. And he won't bring his bees back unless he is paid to do so and knows his colonies will be safe during the pollination period and safe from sprays and bee diseases.

When I think about protecting people's interests I am thinking of the grower, the beekeeper, the bees and the kiwifruit themselves.

Let's start with the grower. When you set out your orchard you think about pollination because you plant male vines in amongst your female vines. But that is only half the story. I would like you to think 3-5 years ahead when hives will be brought into your orchard.

1. Have you left generous headlands so a beekeeper can get his truck around your orchard? Access to suit a three tonne truck should be regarded as the minimum.
2. Have you left corners in each block where a pallet of hives could be placed if that is how your beekeeper supplies the bees?
3. Have you left ditches, irrigation pipes, taps, overhead wires or pipes where they can get damaged by a truck at night when the bees come in, or perhaps worse still cause damage to a beekeeper?
4. Have you left enough room for a central yard where a truck can turn or park if hives or pallets have to be relocated onto a trailer or smaller utility for distribution?
5. Have you made contact with a beekeeper about your requirements for hives? Don't leave it until a few months before the bees are required. Hives are like kiwifruit vines, they can't be created overnight and in 3-5 years' time you might not be able to get any hives. Book a beekeeper in now and maintain contact with him, say once a year, to see how his development programme is going.

If you already have hives placed in your orchard for pollination, but need more for next year, book them in at Christmas time or when the beekeeper takes the hives out of your orchard. The ideal time to create hives for pollination is in January-March. Beekeepers can't just pick up any old hive and use it for pollination. Well, they could but you would be the loser. The hives must be of the right strength, have good food reserves, a young queen, and be housed in very good equipment. There are over 40,000 hives in the greater Waikato area, but at the end of November (kiwifruit pollination time) only about a third of them would meet all the criteria just mentioned. Most would in fact be too strong to shift into kiwifruit orchards.

After ordering your hives you will need to negotiate a price. This is usually set by a group of cooperating beekeepers who provide a pollination service, and then presented to a combined meeting of orchardists and beekeepers in Tauranga. This meeting is usually held in October each year. Most beekeepers will adhere to this price but some flexibility is demanded, depending on individual circumstances; eg some growers may provide the truck and labour to pick up the hives, or the grower may own the hives and the beekeeper just service them and so on.

The pollination fee may seem high related to other crops such as pip and stone fruit that also require pollination. The higher fee is justified because of the problems faced by the beekeeper in supplying hives in mid November-early December. The hives usually have to be taken off a nectar flow, the hives require special management, they do not produce any honey while in the orchards (their condition usually deteriorates), work on other honey producing hives can suffer at a very critical time of the year, and the crop is usually reduced.

CONTRACTS

The use of a formalised contract is favoured by some and not by others. An example of a contract is in Appendix 1. Arataki Honey Ltd take a different approach. They prefer to recover any spray losses by increasing the pollination fee per hive for all hives in the area. (See Appendix 2).

STRENGTH OF HIVES AND NUMBER OF HIVES

There is some debate over both these factors. It is obviously better to have too many hives than not enough. If you feel the colonies are not up to strength, complain to the beekeeper; you are paying for a service. However, lack of activity of bees on your kiwifruit flowers may not be the fault of the beekeeper. It could be your location; there may be too many competing nectar and pollen sources

nearby. You may need an independent assessment of the condition of the hives. But do something while the hives are in the orchard - not after they have gone.

As growers you request the bees to be brought in at a certain time, usually when 10-15% of the female flowers are out. But liaise closely with the beekeeper. Remember he may have other contracts to work in too.

You also decide where you want the hives placed. Some growers and beekeepers have fallen out over this one. Beekeepers forget they are being paid to provide a service but some growers can be unreasonable too.

I would suggest making beekeepers place hives halfway down rows of vines under pergolas as being unreasonable. Bees can fly just as easily from hives at the end of rows.

FINANCIAL RESPONSIBILITIES

Growers, don't keep beekeepers waiting too long for their fee - the beekeeper is one person you probably can't afford to upset.

And beekeepers, don't become fly-by-nighters. You won't get rich quickly on pollination fees. If you are not geared up to providing a professional service, then don't start. This means not only supplying proper strength hives when requested but equally as important you must remove the bees when asked to. It is not fair to your grower, or his neighbours when you cause delays to their spray programmes because you can't or won't shift your bees out on time.

PROTECTING THE BEES

The sequence is as follows:

1. Mow grass sward to reduce competition for the bees.
2. Apply last azinphos-methyl spray at least seven days before bees are due. If male vines are in flower at this stage then delay bringing the bees in. Bee mortality has been caused by orchardists spraying early male flowers.
3. Notify your neighbours and/or the Fruitgrowers Federation office in Te Puke and Tauranga when the bees are brought in and when they go out.

*Footnote: Check with the Fruitgrowers Federation or your neighbours before applying your post blossom sprays.

*Footnote:

The Fruitgrowers Federation provides an excellent service to growers and beekeepers, on a voluntary basis, in the Tauranga and Te Puke areas. A pin on a map is used to locate each orchard when the beekeeper or grower advises that bee hives have been brought in. Conversely, the pin is removed when the hives are taken away. If a grower wants to start his post blossom spray programme, it is a simple matter to check if all hives are out of neighbouring orchards. In some areas of Te Puke there can be over 50 orchards within a one kilometre radius of a given property and there could be over 1,000 hives of bees on these properties.

4. The fungicide, captan, is applied during blossom time, but put the spray on early morning or late afternoon - not when bees are flying. Foraging bees get damaged and chilled by being sprayed on the blossoms. They also get contaminated with the spray and may be treated as intruders when they return to their hives. Captan on the flowers may also act as a repellent and keep bees off them for several hours. I have seen noticeable bee mortality caused by captan applied to raspberries, but Mr Clinch says he has never observed the same effects on kiwifruit. More research is obviously needed on the effects of fungicides on honey bees.

ROLE OF THE MINISTRY OF AGRICULTURE & FISHERIES

Horticultural Advisory Officers and Field Officers can assist you with establishment and cultural problems and with quality assurance. Apicultural Advisory Officers can help with advice on pollination and we have a list of beekeepers willing to provide this service. We are also charged with the responsibility of making sure no insecticides are sprayed on flowering crops, and if bee deaths do occur then we have to do something about it.

As with all legislation of this type awareness and communication are our most valuable tools. We want a fence at the top of the cliff rather than an ambulance at the bottom.

We also have to ensure all hives are registered and inspected regularly and kept in a disease free state.

CONCLUSION

I said earlier that kiwifruit growers need the beekeepers, but the beekeepers can exist quite happily without the kiwifruit growers. This state of affairs is changing in our area.

As horticulture intensifies areas suitable for honey production diminish so making some beekeepers more and more dependent on pollination fees as a major part of their income. A large number of hobbyist or semi-commercial beekeepers are also appearing, especially in the Bay of Plenty and are looking for a pollination fee rather than a honey crop. This trend will continue.

The beekeeping and kiwifruit industries are being forced together whether we like it or not, but this arrangement can be and should be mutually beneficial provided we look after each other's interests and communicate.