## COMBATING WASPS IN NEW ZEALAND

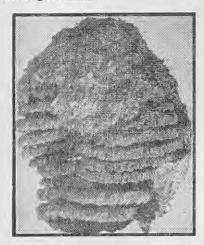


Chemical powder being blown into a wasp nest in a bank. To load the tube with the powder it is looped and the powder dropped into the end opposite that inserted into the mouth.

time and until late in the autumn before the workers, males, and the old queen die, these wasps, because of their fondness for sweets, including jam and ripe fruit juices, become a great nuisance to housewives and beekeepers and in home orchards.

Beehives receive considerable attention from these wasps and any weak colonies are likely to be slowly robbed of their honey. The wasps do not store honey or other sweets in their nests, as no food is required for consumption in winter. By May, when the young queens bred in autumn leave the nest and fly away to hibernate, there is a decided slackening off in the activity of the wasps.

The outside paper covering of the ordinary wasp nest is light greyish. Nests may be located by watching the regular flight of the wasps in any direction, especially near ground level or toward the entrance to a hole in the ground. The sides of an earth bank where conditions are likely to be fairly dry are favoured for the building of nests.



Wasp nest, showing tiers of combs.

Unlike the honey bee, which dies once it loses its sting, the female wasp can sting repeatedly. It is unfortunate that these insects have become established in New Zealand, and though they are regarded in other countries as being more a nuisance than a pest, in New Zealand it is desirable to control them. That can be done only by the vigilance and prompt action of the public in locating nests and by suitable arrangements for their destruction.

## Where to Look for Hibernating Queens

As each nest left undestroyed may produce hundreds of queens in autumn, it is worth while knowing where to look for queens once they have gone into hibernation. The following are some of the places favoured by these queens:—

1. Underneath loose bark on semidecayed trees. In 1948 around Hamilton thousands of queen wasps were discovered in such hibernating places.

2. Under sacks hanging on a fence or piles of sacks in a shed.

Underneath tile roofs or between roofing iron and sarking.

4. Under stack covers.

5. In coats or clothing hanging up in open sheds.

6. Under piles of stacked timber.

#### Where to Look for Nests

Nests can be found in a great variety of places, sometimes even in buildings. Gullies, river-banks, and drains appear to offer the most suitable places for the queens to begin a nest in spring. Although a nest may be several feet long, the only indication that it exists is a small opening (about 2in. in diameter) from which wasps can be seen coming and going. Because these small openings are very difficult to find, the observer has to be guided by the flight of the wasps to a particular spot. It is surprising

how many nests can be located by watching carefully and then following the main direction of flight until a point is reached where it is quite easy to see them entering a hole in the ground.

### Control Measures

Much experimental work has been carried out in an endeavour to improve the control measures used in the past, but at present the only effective means of control appears to be based on the destruction of queen wasps and established nests before queens have had time to hatch out.

Queens can be caught easily during hibernation. While flying around in spring, they can be knocked down with a fly swat or tennis racket.

Nests once discovered can be dealt with by dusting D.D.T. powder well into the opening. It has been found that unless a nest has been disturbed previously powder can be applied quickly with very little risk of the operator's being stung. The application of this powder can be made during the daytime, when the wasps are flying in and out, or it may be left until evening, when activity has quietened down.

For D.D.T. to be effective it is essential that it should be well distributed inside the opening, because the wasps must come in contact with the powder. A second application is sometimes needed a week or so later where the wasps have found a track out which is free of D.D.T. Applying the powder by a tube as illustrated gives efficient distribution. If the tube is loaded before approaching the nest, only a second or two is required to administer the dose. Hundreds of nests have been treated in this manner without operators being stung.

To assist the public in the destruction of every possible nest the Department of Agriculture will issue free a supply of 10 per cent. D.D.T. powder to anyone notifying nests. Supplies and information will be available from the nearest office of the Department.

The public should endeavour to destroy every nest and should kill hibernating queens immediately. If this is neglected, it is possible that in some seasons wasps will be so numerous that great inconvenience and annoyance may be caused to everyone; their stings are painful, and in autumn they are very persistent in their search for sweets such as jam, ripe fruit, and honey.

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