## MITES ASSOCIATED WITH HONEYBEES IN QUEENSLAND

In Queensland, casual infestations of honeybees, *Apis mellifera* L., by mites, *Pediculoides ventricosus* Newp.\* and *Hypoaspis* sp.†, have been recorded (Veitch 1936, p. 93; Simmonds 1949, p. 42).

Recently during routine quarantine examinations mites determined as *Acarapis woodi* (Rennie) were found externally on a worker honeybee in a queen bee consignment from California, U.S.A. (Roff 1959). Following this, similar mites, stated to be *Acarapis dorsalis* or *Acarapis woodi externus* in the United States of America, have been located in various parts of North America, including California (Eckert 1959a, 1959b), Massachusetts (Morse 1960a), British Columbia and Alberta, and indirectly reported from Utah and Louisiana (Morse 1960b). Records also show that in 1926 *Acarapis externus* was recorded from the United States of America, Toronto (Eckert 1959a) and Quebec (Foote 1959).

Introductions into Queensland during 1960 from Italy, New Zealand, and United States of America (Louisiana, Mississippi and Tennessee) have been found to be infested on the thorax with *Acarapis* mites.

In Queensland, a quick survey has been made and *Acarapis* mites have been found on the thorax of worker honeybees from several Brisbane apiaries, and in several country areas extending from Warwick to Atherton. These widely spaced localities indicate that the mite must be of general distribution in the State. In no instance have *Acarapis* mites been found in or near the tracheae of honeybees in Queensland.

Acarapis woodi when found in the tracheae of honeybees is associated with the condition known as acarine (Isle of Wight) disease. There is an opinion that this mite is present but undetected in many countries, that it can exist as a harmless parasite, and that it only becomes pathogenic under particular circumstances (Morgenthaler 1959.) Recorded occurrences in countries other than Europe and North America are from Argentina, Chile, Uruguay, India, U.S.S.R. and Canary Islands (Jeffree 1959).

There is also an opinion that external mites on honeybees might be a variety of *A. woodi* (Baker *et al.* 1956, p. 62), or even a distinct species (Schneider 1941).

Assistance with identifications of mites found in Queensland has been given by the Commonwealth Institute of Entomology, London.

<sup>\*</sup> Now known as Pyemotes ventricosus (Newp.)

<sup>†</sup> Now determined as belonging to the genus Neocypholaelaps.

## REFERENCES

- BAKER, E. W., EVANS, T. M., GOULD, D. J., HULL, W. B., and KEEGAN, H. L. (1956).— A manual of Parasitic Mites of Medical or Economic Importance. (National Pest Control Association, Inc.: New York).
- ECKERT, J. E. (1959a).—Acarapis mites reported to have been introduced into Australia from California. *Bee World* 40:284.

ECKERT, J. E. (1959b) .- No acarine disease in California. Aust. Beekpr 61:105.

FOOTE, H. L. (1959).—Acarine mite reported in U.S. Glean. Bee Cult. 87:666.

- JEFFREE, E. P. (1959).—The world distribution of acarine disease of honeybees and its probable dependence on meteorological factors. *Bee World* 40:4.
- MORGENTHALER, O. (1959).—My experiences with acarine disease. Dtsch. Bienenw. 10:87. (Review in Bee World 41:132).

MORSE, R. A. (1960a).—Acarine mites found in Massachusetts. Glean. Bee Cult. 88:29.

MORSE, R. A. (1960b).-More on the acarine mite. Glean. Bee Cult. 88:124.

- ROFF, C. (1959).-Warning to beekeepers on importation of queenbees. Aust. Beekpr 61:37.
- SCHNEIDER, H. (1941).—Investigations on the *Acarapis* mites of the honeybee. The mite on the wings and abdomen. *Rev. Appl. Entom.* A. 29:528.

SIMMONDS, J. H. (1949).—In Rep. Qd Dep. Agric. 1948-49.

VEITCH, R. (1936).—In Rep. Qd Dep. Agric. 1935-36.

A. R. BRIMBLECOMBE and C. ROFF, Queensland Department of Agriculture and Stock.

(Received for publication September 14, 1960)

S. G. REID, Government Printer, Brisbane