

Tracheal Mites

Causative Agent: *Acarapis woodi* (Acari)

Range: Originally South & Central America

Life cycle:

- Live in the thoracic and occasionally the abdominal tracheal tubes of all 3 casts of bee.
- When in high densities it affects the bee's ability to work (decreases production and efficiency).
- Feeding occurs in the tracheal tubes where the mite penetrates through the tube to feed on hemolymph (blood).
- Female mites move to new emerged adults and begin laying eggs within 3-4 days.
- Eggs take 3-4 days to hatch and newly hatched mites move to newly emerged adults.
- Mites move by bee-to-bee contact.
- Mite populations usually decrease during the foraging season and rarely show signs of infestation in the summer and fall.

Management:

- Menthol and Aluminum phosphide can be used in the hive during periods when there is no honey overflow.
- There are newly proposed methods involving coating the bees with oil/shortening which prevents the mites from transferring bee-to-bee. These methods are untested and should be used with caution.

Misconceptions:

Eradicating mites from a hive is impossible; however it is possible to keep population levels low enough so that there are no ill effects.

Other Useful Sites:

http://www.ent.uga.edu/bees/Disorders/Tracheal_mites.htm

References used:

<http://www.ento.psu.edu/MAAREC/pdfs/TRACHEAL.PDF>

Pesticide Information Center OnLine Output

Crop EQ BEE HIVE
States EQ OR
Year EQ 2007

AND

Pest EQ TRACHAEL MITE
States EQ OR
Year EQ 2007

NAME	EPA #	SLN #	INGREDIENT	CONCENTRATION	REGISTRANT NAME
DEGESCH PHOSTOXIN PREPAC ROPE	72959-8		ALUMINUM PHOSPHIDE	55.0%	D & D HOLDINGS, INC.
DEGESCH PHOSTOXIN TABLET PREPAC	72959-9		ALUMINUM PHOSPHIDE	55%	D & D HOLDINGS, INC.
DREXEL DREX-PH3 ALUMINUM PHOSPHIDE FUMIGANT PELLETS	19713-569		ALUMINUM PHOSPHIDE	60.0%	DREXEL CHEMICAL COMPANY
DREXEL DREX-PH3 ALUMINUM PHOSPHIDE FUMIGANT TABLETS	19713-571		ALUMINUM PHOSPHIDE	60.0%	DREXEL CHEMICAL COMPANY
MITE-A-THOL MENTHOL	61671-1		MENTHOL	99.94%	MANN LAKE SUPPLY LTD.
MITE-AWAY II	75710-1		FORMIC ACID	48.4%	NOD APIARY PRODUCTS
PHOSFUME FUMIGATION PELLETS	70506-14-1015		ALUMINUM PHOSPHIDE	60%	DOUGLAS PRODUCTS & PKG