

Honeybee Pests & Diseases - Varroasis

Two species of wax moth are present in the UK - the Greater Wax Moth *Galleria mellonella*, and the Lesser Wax Moth *Achroia grisella*. Both are a pest to bees, but it is the Lesser that concerns our beekeepers the most, and it is usually ever present in and around the apiary, and wherever you store your hive components and wax. Closely related to and resembling the clothes moth, it can fit through the smallest cracks in your hives defences to lay eggs in wax comb in the dark corners of the hive. They enjoy the warmth of the hive between 28 - 30°C, but are not tolerant of the cold.

Note: This is a not a notifiable disease however any suspected incidence of Wax Moth should be remediated without delay, inform your local beekeeping association / community of its presence.

Recognition

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Adult Wax Moth (left), larvae, fibre web, debris and damage to comb (right).

The wax moth resembles the common clothes moth, and scurries about in the hive avoiding capture, but it is the moth larvae that does the damage. Tell tale signs are the adults, grubs, fibre webs and debris, damage to comb, the pupal cocoons and elongated depressions in wooden hive components.

Detection

The adults and larvae are visible in the hive. The adults try to evade capture by scurrying around the hive in a running zigzag movement. Fully grown larval grubs are about 20mm long and are found burrowing into mature comb. The fibrous webbing and debris they create is also very visible, as are the clusters of pupal cocoons on the inside walls and under the cover boards and roof, on the frame tops, and under the ends of the frame lugs.

Monitoring - Vigilance is important with all honeybee diseases and pests. Check all apiaries and colonies regularly for health and suspect any colonies that are not thriving where there is no already known reason. Colonies that die out should be examined thoroughly and sealed to prevent robbing and spread of any disease present.

Treatment

There is no 'cure' treatment available in the UK for the wax moth, although Vita Bee Health supply B401 (Certan), a safe and environmentally friendly product based on a concentrated solution of the micro-organism *Bacillus thuringiensis*, and claims to provide 100% moth control, but is not yet widely available. Wax Moths thrive more in colonies that are weaker or suffering

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from some other ailment, while strong colonies will catch and remove the moth larvae before they do any damage. Maintain good beekeeping hygiene practices, keep strong colonies, avoid giving the moths the opportunity to move into unused comb, store comb in cold dry conditions. Disease and pest prevention is best practice, maintain good apiary housekeeping:

- Always maintain strong and vigorous colonies that show good hygienic tendencies, re-queen from known healthy disease resistant colonies.
- Always maintain a high level of hygiene in all your beekeeping practices.
- Carry out methodical health inspections on a regular basis, checking for brood disease particularly in spring and autumn.
- Never transfer combs between colonies without checking for brood diseases.
- Systematically replace old brood combs in your hives melting down the old comb to maintain clean and healthy brood.
- Never bring colonies or equipment into your apiary without establishing their origin, condition, and disease status.
- Sterilise any second-hand equipment or hive components before introducing them into your apiary.
- Discourage drifting and robbing in the apiary.
- Suspect stray swarm health until you know otherwise.
- Report any incidence of disease or suspicious conditions immediately to your local beekeeping association / community.

Note: don't be tempted to use moth balls, the naphthalene or para-dichlorobenzene are insecticides and repellents, which emit poisonous gas that is fatal to bees. They will also spoil honey and render unfit for consumption.

Vectors

The wax moth is endemic to all beekeeping, and is ever present in the UK. Wherever there are bee hives, there will be wax moths. They will be present in your apiary to some degree or another, it largely depends on the health and strength of your colonies and the bees ability throw them out of the hive before they proliferate and cause damage. They can be easily transported to and from the apiary, and between apiaries, and hives on hive components.

Note: beekeepers are the principal and most rapid means of spreading bee pests and diseases.