

Small Hive Beetle (SHB) - Management in a small apiary

What is Small Hive Beetle?

SHB - Small Hive Beetle - was identified in 2002 in the western suburbs of Sydney. It was the South African strain.

SHB is now prevalent throughout the Australian mainland.

SHB is a small black/brown beetle which invades the hive. They annoy the bees, which in turn harrass them into corners and crevices. The bees can manage small numbers of **SHB**, but when the females lay eggs (up to 300 per day) the resulting larvae can destroy the hive. The larvae then fall out of the hive entrance to pupate in the soil.

Here are some relevant facts :

- **SHB** can fly up to 10 km a day, and can also hitch rides in vehicles, on clothing and in luggage.
- **SHB** can live for over a year.
- Beetles attract beetles. They have very sensitive hormone detectors, so they can be attracted by flying past a hive.
- **SHB** can live and reproduce in hives, in fruit, and in pollen.
- Larvae burrow through comb (particularly looking for pollen), leaving slimy traces, destroying brood and stores, and eventually destroying the hive.
- Conditions near the coast favour beetles.
- Hives in shade are more vulnerable.

Have I got SHB?

- Lift off lid and quickly scan all surfaces for small black beetles scurrying from the light. Squash as many as you can.
- Remove top super and place it on the upturned lid (any beetles will scurry away from the light and down onto lid).
- Now search the brood super for beetles, paying attention to corners and crannies.
- Inspect combs for slimy surfaces and small pointy larvae.
- Wow! Not many beetles? Good. Reassemble the hive, but inspect the lid as a final confirmation.
- Place beetle traps as a precaution. With regular service, these should keep the numbers of **SHB** under control.

How do I manage SHB?

The hive :

- Ensure all components of the hive are sound, clean, well-painted (particularly inside) with no cracks.
- Smooth all internal corners with gap-filler, formed into a concave bead so that the beetles cannot hide there.

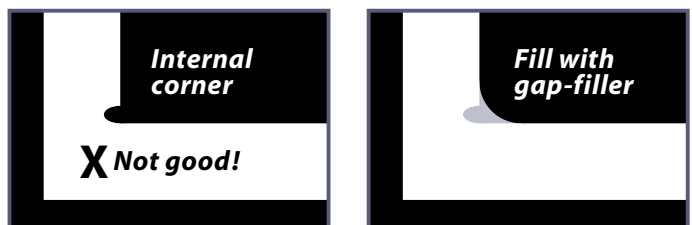
The site :

- Have hives in full sun all year round (may be shaded during very hot weather).
- Face hive entrances E.N.E. (into the rising sun).
- Hives should
 - be sheltered from the wind
 - be on dry hard soil
 - have vegetation cleared for 1m around stands.
 - toads will eat larvae as they tumble out to pupate in the soil.

Management :

- All combs in the hive should be worked by bees. Discard all old, dark comb.
- Use traps to control the number of beetles in the hive. Service the traps regularly (every 3 to 4 weeks).
- Breed from hives which are most resistant to beetles.
- Do not try to resurrect weak hives.
- Deal with dead-outs and slime-outs promptly.

Cross-section through box :



**Small
Hive
Beetle**
*Aethina
tumida.*

In the honeyhouse :

- Extract honey promptly.
- Ensure honey, comb and cappings are never exposed (always sealed).
- Return stickies (recently extracted frames) promptly to the hive.
- Store combs in sealed cool place.

Traps :

- There are effective traps available.
- Consult beekeepers, DEEDI (DPI) and suppliers for their views.
- **'Beetle Eaters'** (oil traps) are my preferred traps.
 - They are available from Quality Beekeeping Supplies.
 - Make sure **no peanut oil** is in the oil you use. Don't use a generic 'vegetable' oil for this reason.
 - Fill the trough two-thirds full.
 - Place the traps in the very top back corners, between the outside frame and next frame.
 - Use two traps per hive.
 - Service every 2-3 weeks (3-4 weeks in winter).
 - Take great care when filling, and when checking, not to spill any oil in the hive. Spilt oil will kill a bee instantly.

If a hive is destroyed :

- You must destroy as many beetles, eggs and larvae as possible.
- Use boiling water, fire, solar melter or place in a black plastic bag in hot sun.
- Save as many hive components as possible. These may be cleaned with hot water or pressure cleaner, and repainted.

