

National Bee Unit

Voluntary Sentinel Apiary (VSA) Scheme Equipment

Firstly, I would like to thank you for taking part in the UK sentinel apiary scheme. Sampling from honey bee colonies around England and Wales is an integral part of our first line defence against exotic pest incursions. Currently the notifiable exotic pests are Small hive beetle (*Aethina tumida*) and *Tropilaelaps* spp. mites

Each sample submitted to the Laboratory at Defra Science Ltd. is examined in detail, not just for complete exotic pests, but for any part of them.

In addition, the National Bee Unit (NBU) inspects imports and colonies in risk areas, including those at enhanced sentinel apiaries which are inspected three times per season. It can be seen that great importance is placed on finding any exotic pest incursions as early as possible.

However, we do recognise the considerable commitment you put aside to prepare, collect and send samples in June and September each year. Also, a great deal of NBU time is spent arranging the provision of equipment to the beekeepers who take part, and laboratory time analysing the samples.

At the end of each season the number of VSAs and their samples submitted are communicated to senior Defra managers. The expectation is that each region will have a minimum of 15 VSAs, all of which submit two samples annually. The analysis of these is given great importance, hence those who take part in the scheme are sometimes contacted by their local inspectors if samples are not received.

Another task at season-end has been to request a list of equipment required for the following year. Requests are varied and this exercise is sometimes seen as an unnecessary layer of bureaucracy by beekeepers.

The 2022 Season

To make the provision of equipment more efficient we will be trialling its issue based on sample submissions. This will negate the need for lists from the VSA scheme beekeepers at end of year (only a low percentage are returned in any case). We appreciate that some participants were contacted in 2021 under the previous arrangements before this decision was made.

If no samples were received during the season, it will be assumed that you still have previously issued equipment. For any additional items, or in the case of loss or damage please inform me or your local Regional Bee Inspector (RBI) or Seasonal Bee Inspector (SBI). We will then arrange for replacements to be issued.

The equipment sent to those joining the scheme will continue as before, but it should be expected that your SBI will also demonstrate how to complete an exotic pest inspection and the correct use of the Small hive beetle (SHB) traps.

In order to ensure that SHB traps only go to those that use them they will be provided by your local inspectors when delivering the rest of the annual equipment.

Equipment Usage – Sampling in June and September

Small Hive Beetle (SHB) traps: Two types of beetle trap are included in the initial kits. The first is an oil trap which is placed between the frames within the hive and is designed to drown any beetles that enter. The second is a Correx trap that is inserted onto the floor below the frames via the entrance. SHB can use the Correx flutes to hide from the bees and lay their eggs. If the Correx insert is too big or gets in the way, it can be cut down with scissors to fit along the rear of the floor.

It is preferable to fit traps to weaker colonies as they will be more vulnerable and therefore more attractive to SHB. Under normal circumstances VSAs are only expected to use one *of each* type of trap per designated apiary.

A user guide is included in the starter kits but can be emailed on request. We also intend to put digital copies on BeeBase and will notify scheme members when this is done.

Envelopes: Two types of envelope are supplied. A white envelope for containing floor debris and a Jiffy padded envelope for postage. Samples are best preserved in paper rather than plastic bags when going through the postal system, hence the use of envelopes. If an Eppendorf tube is sent through the post, please place this inside the white envelope with sender/sample labels attached within the padded jiffy envelope.

Labels: Three labels are supplied in the equipment kits.

The first is a pre-paid postage label so no stamps are required. This label is attached to the padded jiffy envelope containing the sample within the white envelope.

The second is a duplicate of your address label and is attached to the white sample envelope to identify where the sample originated. Your BeeBase number is also printed after your name.

The third is the sample label which you need to complete before postage. The sample label assists the Lab identify the apiary where and when it was taken, and the type e.g., debris or other.

Plastic Bags: Under normal circumstances two single clear plastic bags should be sufficient for each season, one for the June sampling inspection and the other for September. However, if sterilised they can be reused.

Plastic bags are supplied so that the Correx beetle traps can be placed inside prior to shaking/tapping when examining for beetles. Using the plastic bags in this way will contain any dislodged SHBs and, depending on the clarity of the bag, sometimes allow a photograph to be taken of the insect. The bag can be kept sealed (to stop the SHB flying away) and placed in the freezer whilst the NBU is alerted.



7" Wire: A piece of wire is included in the initial kits to clear blockages from the Correx flutes i.e., clearing wax or propolis.

Uncapping Fork: This is provided to uncap pupae to examine for *Tropilaelaps* spp. mites. We include an uncapping fork in the initial start-up kits.

Eppendorf Tubes: These are supplied in the initial kits and are used for containment of suspicious insect samples or diseased larvae. If you suspect foulbrood or an exotic pest you must immediately inform your RBI, SBI, or the NBU Office. To contain an insect or larvae removed manually from the comb, an Eppendorf tube can be used. Do not post before speaking to an inspector as they may wish to visit to see it, conduct tests on-site and inspect the colonies affected.

Suspicious live insects should not be posted in case the package is lost or damaged giving the occupant an opportunity to escape. Place in a freezer and notify your RBI, SBI or NBU Office.

Feedback from the Defra Laboratory suggests Eppendorf tubes are rarely used in connection to the VSA scheme.

The Routine Sampling Method

The majority of the samples received at the Laboratory consist of debris from a varroa insert or solid floor. In the case of the former, it is inserted at least a week before the sample is required. It is requested that VSA beekeepers also examine their colonies specifically for exotic pests, at least in June and September. If you're unsure how to do this contact your SBI or RBI.

Debris that falls from the hive may include dead or alive exotic pests or body parts thereof. It may also include their eggs.

Debris is scraped with a dry hive tool into a white A5 envelope. Debris from more than one hive can be placed in the same envelope, but if it gets too full use a second in case it bursts open in the post. Make sure all envelopes are identified with the sender's details and have completed sample labels attached.

Samples must be apiary specific so if you have more than one listed on the programme use a different envelope for each. A sample label is attached to the envelope, and it is then placed in a jiffy bag with a post-paid sticker on it. All these items are provided annually.

As mentioned above; we will trial the addition of a second personalised address label on the sample white envelopes which will include the BeeBase ID number. This will reduce the required information on the additional sample label.

If the sample label is then fully completed no other paperwork is required.

Once analysed the Laboratory will send you an email confirming the result.

Asian Hornet Monitoring

For general surveillance, the use of non-killing traps is encouraged. Instructions for making such a non-killing trap is on BeeBase but other types can be adapted to separate the liquid bait from the insects. However, these traps require examination every day to release by-catch. If you are in a high-risk area near to previous Asian hornet outbreaks, contact your RBI or SBI to discuss whether the risk justifies the use of killing traps if you are unable to commit to releasing by-catch (beneficial non-target insects) on a daily basis.

Your local inspectors can be found by inputting your postcode here:

[Beebase - Beekeeping information resource for Beekeepers \(nationalbeeunit.com\)](https://nationalbeeunit.com)

Thank you again for supporting the sentinel apiary scheme.

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North West Region

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