



Department
for Environment
Food & Rural Affairs

Pest Specific Contingency Plan

Small hive beetle and Tropilaelaps mite

September 2017





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Contents

Introduction	1
Response	4
Command and Control	4
Official action on suspicion	5
Action on confirmation of SHB or <i>Tropilaelaps</i> spp.	5
Statutory Infected Areas (SIAs) and Movement Restrictions	10
Emergency Searches and Inspections	10
Trace forward/backwards	11
Laboratory Diagnosis	11
Isolated Outbreaks	11
Widespread outbreak	12
Decontamination/disposal	12
Emergency Pest Control: Product Treatment Availability	12
Treatment Schedules	13
Standard Operating Procedures (SOPs)	13
Notifications	13
Communications	15
Training and Extension	16
Review	17
Exit plan	17
Post-eradication: surveillance	17
Widespread and Established Outbreaks – Introduction of a Management Plan	17
Evaluation and Review of plans	18
Annex 1: Roles and Responsibilities of Beekeeping Associations and Beekeepers	19
Annex 2: Anticipation, Assessment and Preparation	21

Anticipate and Assess	21
Prepare: Apiary Surveillance	21
Annex 3: Glossary	24
Annex 4: SHB/<i>Tropilaelaps</i> ssp. Key Facts	25

Introduction

1. This plan sets out the role of the Department for Environment, Food and Rural Affairs (Defra) and the Welsh Government (WG) as Lead Government Departments (LGD) and the actions that will be taken in response to a suspected or confirmed outbreak of Small hive beetle (SHB) or *Tropilaelaps* mite within England or Wales.
2. Honey bees make an important contribution to the sustainability of the countryside, contributing both to agriculture and horticulture and to biodiversity. There are an estimated 180,000 colonies of honey bees in England and Wales kept by around 38,000 beekeepers.
3. Serious or significant pests require strategic level plans, developed at a national level describing the overall aim and high level objectives to be achieved and the response strategy to either eradicate or contain an outbreak to minimise the impact on this important sector.
4. The purpose of a Pest Specific Contingency Plan is to ensure a rapid and effective response to an outbreak of the pest or disease described.
5. This plan fits into the Government's wider role on preparing for emergencies. Further information is available on the gov.uk website: [guidance preparation and planning for emergencies](#). Our plan follows the principles laid down for the government response to emergency situations and joins up with Defra's own overarching emergency response procedures. It should be read in conjunction with the [contingency plan for plant and bee health in England](#).
6. This plan gives details of the teams and organisations involved in a bee pest response in England and Wales, their responsibilities and governance. It also describes how these teams and organisations work together in the event of an outbreak of a bee health pest.
7. It will be tested annually to ensure that it remains fit for purpose through field or desktop exercises. It will be reviewed annually to take account of changes in policy, governance and lessons learned from exercises, suspect cases or other outbreaks/emergencies.
8. Contingency planning and outbreak management starts with the anticipation and assessment of potential threats, includes preparation and response, and finishes with withdrawal of specific response procedures.

Prepare: Anticipate

- Collating and appraising sources of information and intelligence about the pest.

Prepare: Assess

- Identifying concerns and the preparation of plans.
- Set outbreak objectives.

Prepare: Education and awareness

- Ensuring staff and stakeholders are familiar with the pest.

Response

- The requirements to either contain or eradicate including work to determine success.

Response: Review

- The response to the outbreak should be assessed to ensure that the plan remains the best option and on-track to deliver the agreed objectives.

Recovery to new normal

- When the response strategy has been effective or when the response is not considered feasible, cost effective or beneficial.

Scope

9. This Contingency Plan describes how Defra, the WG, the Animal and Plant Health Authority's (APHA) National Bee Unit (NBU) and Fera will respond if SHB or *Tropilaelaps* ssp. is discovered in England or Wales. Bee health policy is a devolved area and therefore an outbreak in Scotland or Northern Ireland would be the responsibility of the Scottish Government and the Department of Agriculture, Environment and Rural Affairs (DAERA), Northern Ireland respectively. Therefore similar plans are available for Scotland and DAERA. Defra, the Scottish Government and WG are committed to working together to tackle animal and plant health diseases under the animal and plant health concordat and to share information during an outbreak openly and co-operatively. Similarly we would keep the Bee Health Team in Northern Ireland informed of developments.
10. The aims and objectives of the plan are to protect the English and Welsh honey bee population from SHB and *Tropilaelaps* ssp. by:
 - Early detection;
 - Intercepting and preventing establishment;

- Eradicating any outbreak if considered practicable;
- Containing and controlling an outbreak, if field evidence suggests that it is well established in a defined but limited geographical area;
- Establishing long-term management where eradication and control is no longer possible due to the number and extent of outbreaks; and
- Providing assistance to the beekeeping industry, pest controllers and local authorities in the form of training and advice on pest control.

Prepare: Anticipate, Assess and Educate

11. Details of the work undertaken to anticipate, assess and prepare for SHB and *Tropilaelaps* mite are given in [Annex 2](#). The National Bee Unit (NBU) have carried out pest risk analysis on [SHB](#) and [Tropilaelaps ssp.](#) based on the evidence available.
12. The NBU also carry out a risk-based Exotic Pest Survey (EPS) to check hives for the presence of exotic pests. Around 120 sentinel apiaries held by volunteer beekeepers are sited close to high risk points (such as ports and airports) and at other points throughout the country and provide additional surveillance for the presence of exotic pests.
13. The NBU also presents Bee Health advice at training courses for beekeepers including advice on how to spot bee pests such SHB and *Tropilaelaps ssp.* Information on the SHB and *Tropilaelaps ssp.* is provided on the [NBU BeeBase website](#).
14. If beekeepers suspect their hives may be infected with SHB or *Tropilaelaps ssp.* it is a legal requirement for them to notify the NBU immediately. These pests are notifiable under the Bees Act 1980 and Bee Diseases and Pests Control (England) Order 2006 and Bee Diseases and Pests Control (Wales) Order 2006 (BD&PC Order).

Response

This section sets out how the response to an outbreak will be managed, initial actions following a suspect sighting, actions on confirmation, how we review the on-going response and how we recover to the new normal (either after eradication or on the introduction of a management plan).

Command and Control

15. The response to a SHB or *Tropilaelaps* spp. incursion will be controlled using a Strategic, Tactical and Operational Command Structure:

- **Strategic Command** – Lead Government Department (LGD)
The LGD is responsible for overall policy of command and control;
- **Tactical Command** – National Disease Control Centre (NDCC)
The NDCC is responsible for planning and coordination of actions determined at a strategic level;
- **Operational Command** – Local Disease Control Centre (LDCC)
The LDCC is responsible for implementing inspections in the field and Operational Guidance.

16. Flexibility and proportionality in the delivery of the response is important. For a small outbreak it may not be necessary to establish all the structures required for a major outbreak. Most of the activities and functions described in the response structures will still need to be delivered, but there may be variations in the way this is achieved.

Identification information

17. Information on how to identify SHB and *Tropilaelaps* spp. is available on Beebase, the NBU's website:

- [SHB](#);
- [Tropilaelaps spp.](#)

18. SHB and *Tropilaelaps* spp. are most likely to be found by Bee Inspectors during an inspection or by a beekeeper. Therefore it is likely that the NBU will be the first point of contact. If any suspect cases are reported to other Government contacts they should be forwarded to the NBU.

Email: nbuoffice@apha.gsi.gov.uk;

Telephone: +44 0300 3030094

Official action on suspicion

19. The NBU will take immediate investigative action according to Standard Operating Procedures and report all investigations via the Head of the NBU to the Defra's Deputy Director for Plant Health, Bees and Seeds or, if the finding is in Wales, the SRO for Wales. Once alerted the Deputy Director or SRO Wales may convene a LGD meeting, by teleconference where necessary, to assess the report, decide on the viability of the suspect finding and any immediate actions (including movement restrictions) that need to be put in place.
20. The Head of the NBU will put elements of the NDCC on standby. Defra and WG Policy Teams will also place themselves and other members of the Strategic Incident Team (SIT) on standby and alert their legal services that a declaration establishing a Statutory Infected Area (SIA) may need to be drawn up.

Action on confirmation of SHB or *Tropilaelaps* spp.

On confirmation of a SHB/*Tropilaelaps* spp. finding, the following command structures will be established and actions undertaken. Further details can be found in [Figure 1](#).

Strategic

Confirmation of finding in England

21. The Senior Responsible Officer (SRO) for the incident (usually the CVO/Defra Deputy Director for Plant Health, Bees and Seeds) will appoint the Strategic Incident Commander (SIC), who will normally be the Defra Policy lead for bee health, and communicate the appointment to all persons and agencies involved in the outbreak;
22. The SIT will set up a LGD Meeting. The LGD meeting will be chaired by the SRO. The SIC will be responsible for preparations for the meeting and acting upon recommendations arising from it. They will also take responsibility for managing all the strategic activities related to the outbreak. The SRO for the

outbreak will attend Defra's operational meeting and the Cabinet Office on the outbreak if these are required.

23. The LGD meeting will also include the Defra Press Office, head of the NBU, finance and others as appropriate. Specific activities for the LGD meeting will include:

- Establish a battle rhythm for the outbreak;
- Develop recommendations as necessary for Ministers on strategic direction of response and control policies based on scientific advice from the NBU and Defra's Chief Scientific Adviser and Plant & Bee Health Evidence Team;
- Consider impacts of the outbreak;
- Agree communication and stakeholder engagement plans;

24. A SIT will be established (the Defra Bee Health Policy Team and, where necessary additional policy volunteers) – co-located in Sand Hutton and London. The Bee Health Policy Team will form the foundation of the SIT and will be led by the Strategic Incident Commander.

25. The roles of the SIT include:

- Maintain outbreak records/documents (e.g. action list, core brief, event brief, lessons identified);
- Provide updates to the Defra Press Office and APHA Press Office and agree media handling plans;
- Set-up and provide the secretariat for LGD meetings, circulating agendas, taking a note of the meeting, circulating and commissioning actions, etc;
- Liaison with the NDCC
- Work with Legal if required;
- Provide briefing to relevant Defra teams for the Standing Committee on Plants, Animals, Food and Feed (SCOPAFF) and other EU meetings as required;
- Apply for any necessary and additional funding required for the duration of the emergency where requested by APHA senior management; and
- Monitor impacts.

Immediate actions:

- Once established the SIT will liaise with the NDCC, and with the Defra Government's Legal and Communications Directorates regarding legislative requirements, commissioning expert advice and the dissemination of information to the public, beekeeping associations and other stakeholders.

A LGD meeting will be convened by the SIC within 24 hours to agree strategic approach and identify issues. A core brief will be created to record developments and inform the response plan for the outbreak.

Confirmation of finding in Wales

26. WG's Bee Health Lead (SIC) (following advice from the NBU), will set up a LGD Meeting.

27. The LGD meeting will be chaired by the SRO (Deputy Director, Land, Nature and Forestry Division, Welsh Government) – and the SIC will be responsible for preparations for the meeting and acting upon recommendations arising from it. The SRO for the incident will appoint the strategic commander, who will normally be the WG policy lead for bee health, and communicate the appointment to all persons and agencies involved in the outbreak. The SIC will take responsibility for managing all the strategic activities related to the outbreak.

28. The LGD meeting will also include the WG Press Office, head of the NBU, finance and others as appropriate. Specific activities for the LGD meeting will include:

- Establish a battle rhythm for the outbreak;
- Develop recommendations as necessary for Ministers on strategic direction of response and control policies based on scientific advice from the NBU and Defra's Chief Scientific Adviser and Plant & Bee Health Evidence Team;
- Consider impacts of the outbreak;
- Agree communication and stakeholder engagement plans;

29. A SIT will be established. The WG Policy Team will form the foundation of the strategic incident team and it will be led by the SIC.

30. The roles of the SIT include:

- Maintain outbreak records/documents (e.g. core brief, event brief, lessons identified);
- Provide updates to the WG Press Office and APHA Media Officer and agree media handling plans;
- Set-up and provide the secretariat for LGD meetings, circulating agendas, taking a note of the meeting, circulating and commissioning actions, etc;
- Liaison with the NDCC;
- Work with Legal Department if required;

- Provide briefing to relevant teams for SCOPAFF and other EU meetings as required;
- Apply for any necessary and additional funding required for the duration of the emergency; and
- Monitor impacts.

Immediate actions:

- Once established the SIT will liaise with APHA, the NDCC, and with the WG Legal and Communications Directorates regarding legislative requirements, commissioning expert advice and the dissemination of information to the public, beekeeping associations and other stakeholders. A LGD meeting will be convened by the SIC within 24 hours to agree the strategic approach and identify issues. The LGD meeting will be chaired by the SRO for the incident.

Tactical

31. The Head of the NBU will fully activate the NDCC (based in Sand Hutton) and initiate actions to rapidly establish whether the outbreak is isolated or widespread. The head of NBU will also notify the National Bee Inspector (NBI) and Regional Bee Inspectors (RBIs) to enable deployment of NBU staff and NBU Bee Inspectors to the LDCC at the outbreak area(s).

32. Specific Activities for the NDCC will include:

- Providing daily information reports and technical advice to the LGD as the outbreak develops;
- Securing and deploying appropriate staff resources, equipment and facilities in the LDCC and field service;
- Liaison with Fera laboratory manager to ensure diagnostic capability available;
- Co-ordinating information about the outbreak and dissemination of technical and advisory material to stakeholders/ beekeeping associations and other interested parties;
- Seeking approval from Chemical Regulation Division (CRD) and Veterinary Medicines Directorate (VMD) for novel or emergency treatments;
- Liaising with stakeholders, national beekeeping associations on operational matters and local associations who may be able to contact beekeepers to facilitate inspection arrangements;
- Implementing beekeeper training programmes through the NBU Inspectorate and other staff and using appropriate trainers in local associations;
- Financial management and recording of resource (through APHA finance); and

- Ensuring all NBU staff has had the required training, including media training where appropriate.

Operational

33. The Head of NBU will establish an LDCC near the site(s) of the outbreak (usually at the nearest local animal health office). If it is not possible to establish an LDCC near the outbreak this can be supplemented by a Forward Operating Base (FOB).

34. The LDCC's primary role will be to:

- Direct and co-ordinate response measures, including determining areas and apiaries on which to concentrate surveillance, allocation of apiary searches and use of appropriate pest controls in line with NDCC decision making;
- Provide regular local contact and support for personnel working in the field;
- Maintain telephone contact with and provide incident progress information to the NDCC;
- Provide information to local beekeeping associations; and
- Provide reports on outcome of searches to the NDCC.

Planning

35. The Tactical Commander will draw up a plan in conjunction with the Strategic Commander, setting out specific actions for the outbreak by taking into account where *SHB/Tropilaelaps* spp. were found (urban, rural, wooded), responsibilities for taking forward the action, local battle rhythm (taking into account the battle rhythm set by the LGD). The plan will be agreed by the LGD.

36. On receipt of the report(s) from the LDCC, the NDCC will make an assessment on whether it is an isolated outbreak which may be contained. It will then make a recommendation and update the plan for the SRO and LGD meeting who will then confirm if eradication should be attempted. Isolated means that the pest has only been found in a very limited number of sites in a restricted geographical area (and data from the searches shows a high probability of success in eradication).

Statutory Infected Areas (SIAs) and Movement Restrictions

37. On confirmation of an outbreak, an SIA around the affected apiary/apiaries will be declared by a Notice under the BD&PC Order. The SIT will draw up the SIA with the help of the legal team. The Notice(s) will define precise boundaries and will be published on BeeBase and elsewhere as appropriate.
38. Based on current knowledge of the dispersal of SHB, the SIA will initially cover a minimum 16km radius (the protection zone) and may be altered and enlarged as circumstances change. For *Tropilaelaps* ssp., the SIA will also cover a minimum radius of 16km but inspections will initially be prioritised within a radius of 5km. Restrictions will be placed on all apiaries within the designated SIA, prohibiting the removal of colonies, queen bees, bee pests, used beekeeping equipment, hive debris, all unprocessed hive products, including honey and raw beeswax or any other thing which is liable to spread the pest, within, into or out of the infected area except under a licence issued by the NBU. These restrictions will remain in force while the NBU completes emergency apiary searches and delimiting surveys within the SIA, and until a decision is taken on the extent of the outbreak and whether or not eradication could be attempted. If necessary, movement restrictions will be placed on apiaries outside the SIA or the SIA extended.
39. The LGD meeting will decide whether any health certificates for the export of honey bees can be issued from 100km outside the SIA until the extent of the outbreak is known, and pending any decisions taken at EU level or advice from the EU Commission. Exports will be prohibited from an area 100km surrounding the SIA(s) (the surveillance zone) upon confirmation and until all restrictions are lifted as the export health certificate requires area freedom.

Emergency Searches and Inspections

40. The NDCC will define the size of the search areas and priorities.
41. BeeBase's database and Geographic Information Systems (GIS) will be used to enable searches to be targeted at all known apiaries in an appropriate and scientifically based radius of the outbreak where practicable, plus apiaries that are identified through subsequent tracings e.g. any bee movements or sales of honey bees, hive products and beekeeping equipment from the designated premises within the SIA.
42. Teams of NBU Bee Inspectors deployed to the outbreak area(s) will be based in and coordinate work from the LDCC. They will rapidly establish, through emergency searches, the extent of the outbreak and, if possible, its source. They will also establish if there are further primary infestations in the SIA or any

secondary infestations further afield. Details of the inspection protocols are given in the NBU's Standard Operating Procedures.

43. The LGD meeting will agree a policy on bumblebees and feral honey bee colonies. If colonies are found in close proximity to an infected hive this should be noted in the inspection report.
44. Follow-up inspections will be completed based on any information gathered by this process. Risk analysis will be an integral component of the emergency searches to predict potential spread from the point of entry and assist with targeted inspections.
45. An X2 inspection report should be submitted to LDCC & NDCC after each inspection; the forms are on the secure areas of BeeBase. Access is restricted to authorised Bee Inspectors. The NDCC/Tactical Commander will update the LGD meeting.

Trace forward/backwards

46. SHB/*Tropilaelaps* spp. are likely to spread within the UK from movements of bees during the beekeeping season. The NDCC will arrange inspections of bees which were moved from the SIA prior to discovery of the pest. Other Member States (MS)/Third Countries will be notified of exports from the UK prior to the discovery of the pest.

Laboratory Diagnosis

47. Any suspect samples sent by beekeepers or NBU Bee Inspectors to the Fera diagnostics team, Sand Hutton will undergo a confirmatory diagnosis. A report will be sent to affected beekeepers (copied to the local NBU Bee Inspector(s)) as soon as possible. Turnaround times and reporting will be reviewed if large numbers of samples are submitted. Any positive samples will be immediately reported to the relevant LDCC, or if in a new area, the NDCC.

Isolated Outbreaks

48. After completion of the initial search, if the NDCC considers that the outbreak is an isolated incident and eradication might be practicable (see [Annex 3](#)), this may be attempted following consultation with the LGD meeting. Isolated means that the pest has only been found in a very limited number of apiaries in a restricted geographical area (and data from the searches shows a high probability of success in this endeavour).

Widespread outbreak

49. If Bee Inspectors find multiple outbreaks in one or more location the Tactical Commander, in consultation with the Strategic Commander, will make a recommendation to the LGD meeting regarding the likelihood of eradication and whether a policy of eradication or containment should be pursued. The LGD meeting will make a decision on the outbreak strategy, where necessary consulting Ministers (see [Annex 3](#)).

Decontamination/disposal

50. Whilst an eradication policy remains in place all colonies that are infested or have been exposed to infestation and contaminated hive products in the affected area will be destroyed, normally by burning. All potentially infected equipment will be sterilised or destroyed, as appropriate. The Bee Inspectors will regularly survey the affected apiaries, and place neighbouring unaffected apiaries under close surveillance, for at least two years after the pest has been “eliminated”, to confirm continued freedom. Soil treatments may also be used on the area surrounding the hive.

Emergency Pest Control: Product Treatment Availability

51. Currently, most medicaments available overseas to control many of the exotic pests and diseases of bees are not approved or available in the UK for general use in apiculture as the apiculture sector, particularly in the UK, is a relatively small market. However the NBU holds a stock of Checkmite+ for treatment of SHB within hives. In the event of an outbreak of the SHB or *Tropilaelaps* spp., Defra or WG, on the advice of NBU, will apply to the VMD for Special Treatment Certificates (STCs) to use acaricides or other alternative medicaments considered appropriate to control or treat affected colonies and the Health and Safety Executive for SHB soil treatments.

52. Integrated Pest Management (IPM) techniques, already an important feature of the NBU’s extension programme, will also be advocated as the best approach to control the pest. Details of current methods are available in the NBU advisory leaflets and on [BeeBase](#); the information mainly relates to control of *Varroa* but is equally applicable to treating SHB where it has been agreed that containment is the best approach.

Treatment Schedules

53. Further scientific study is required in order to gain a full understanding of many aspects of SHB biology and habits. So far, chemical measures to control SHB have not been fully effective and are considered short-term measures. The use of nematodes as a soil treatment is also being studied. *Tropilaelaps* ssp. can be controlled using miticides (which have been registered by the VMD) combined with IPM methods. Appropriate precautions as defined in the STC will be taken with any medicaments approved by the VMD to control SHB or *Tropilaelaps* ssp. in the hive, this is to prevent the risk of possible contamination of honey and other hive products. In such cases, it may be necessary in an emergency to place storage restrictions on the use of harvested honey or other hive products from treated colonies, to allow time for residues to break down before consumption or sale. In such instances, Defra and WG will inform the Food Standards Agency (FSA) of any additional controls placed on harvested honey or hive products subsequently intended for human consumption.

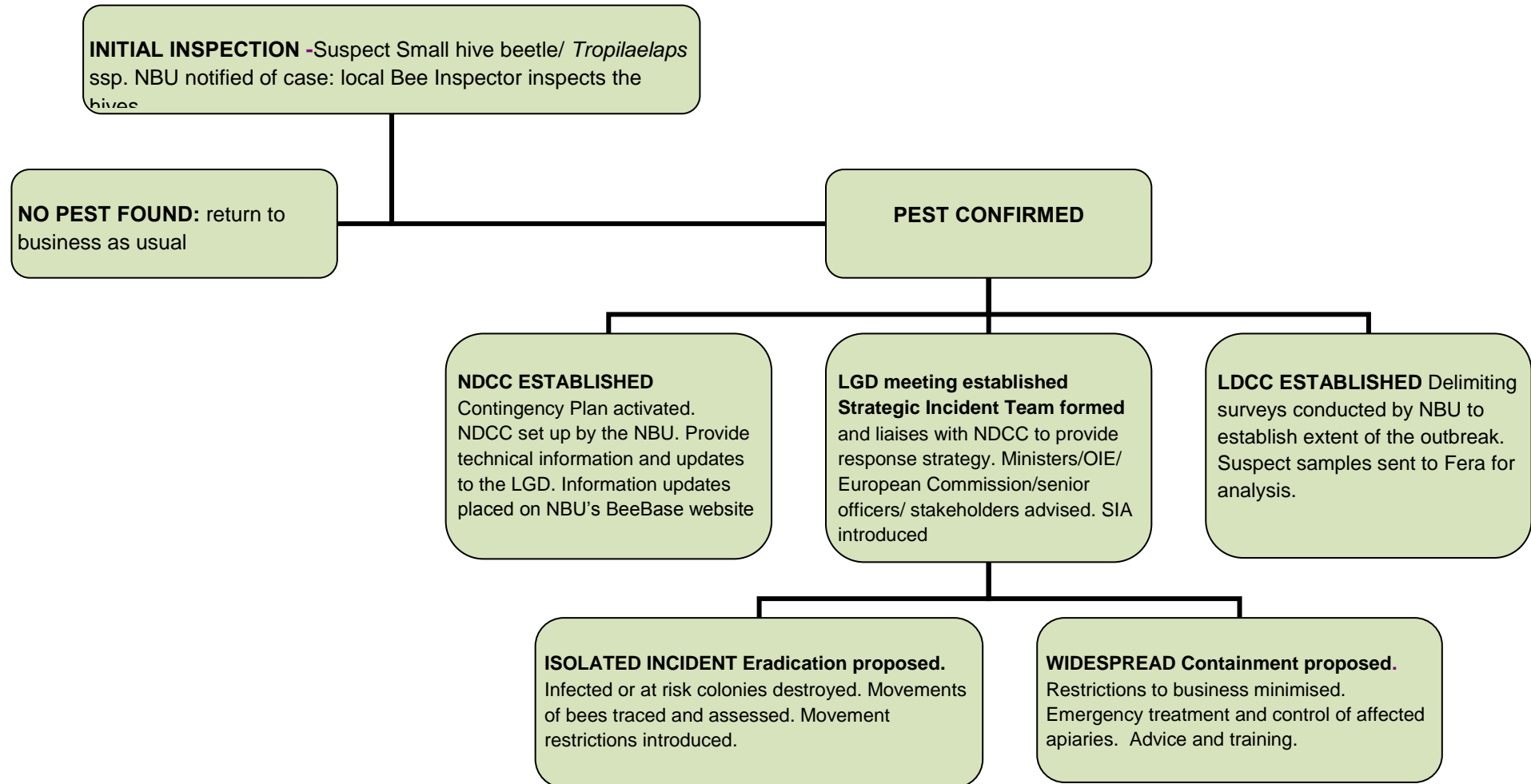
Standard Operating Procedures (SOPs)

54. Operational instructions to carry out the detailed requirements of this contingency plan are set out in the NBU SOPs. Parallel and separate Control of Substances Hazardous to Health and health and safety assessments will be produced where appropriate. The NBU reviews and revises SOPS as a minimum bi-annually.

Notifications

55. The SIT will notify the OIE (World Organisation for Animal Health) and European Commission within 24 hours of a confirmed case of SHB or *Tropilaelaps* ssp. Thereafter they will provide at least weekly update reports.

Figure 1 - Summary of Actions Taken



Communications

External Communications and Correspondence

56. The official spokesperson for interviews with the media will be agreed at the first meeting of the LGD meeting. Any request for a press interview will be sent to the Press Office to deal with.

Stakeholders

57. The Bee Health Advisory Forum (BHAF) will be informed and consulted for advice as required by the LGD meeting. Other stakeholders will be kept informed of developments. Academic institutions, specialist pest control experts or government departments overseas with specific expertise will also be consulted if necessary.

Devolved Governments (DG's)

58. In line with the concordat between Defra, WG and Scottish Government, the Scottish Government will be provided with regular updates on the situation. For cross-border outbreaks, all relevant DG's will be included in the LGD meeting. Similarly, regular updates will be provided to the Northern Ireland Government.

Communications with beekeepers

59. The NBU provide a programme of training events for beekeepers which will help them to identify SHB/*Tropilaelaps* ssp. in their apiaries. If either are confirmed, all registered beekeepers and beekeeping associations will be informed via an email alert. Advice will also be provided, as appropriate, for the wider stakeholder community (e.g. the Plant Health and Seeds Inspectorate, APHA animal health field officers, allotment associations, garden centres, pest control companies, local authorities/councils ports authorities etc.) to raise awareness.

60. All beekeepers registered on BeeBase within 16 km radius of an outbreak (the protection zone) will be informed by mail or email. They will be provided with advisory material and, if SHB is found in the beekeepers apiary, they will be asked to complete an Exotic Pest Incident Questionnaire for return to the NBU. These returns will provide essential information on sales, purchases and recent colony movements and help inform decisions made by the NDCC for follow-up

inspections, etc. All efforts will be made to contact other beekeepers within the outbreak area.

61. Beekeepers within 100 km radius of the SIA will be advised by the NDCC that exports are not possible until the beetle/mite has been eradicated.

62. [BeeBase](#) will be a key source of information in the event of an outbreak. Information provided on the WG website will be available in English and Welsh. Information on BeeBase will include:

- Full details of the infected areas, control measures and restrictions. This will include maps of the outbreak areas at a minimum scale of 10km square;
- Advisory and technical information on biology of the pest and detection and control methods for beekeepers;
- Information for beekeepers on how to send suspect samples to the NBU laboratory in order to prevent, as far as possible, the risk of spread of the (suspect) pest during transit;
- General advice for interested parties, e.g. press; and
- Links to relevant websites for further technical information.

General public

63. Information on the outbreak will be made available on the gov.uk website and on BeeBase.

Immediate area of outbreak

64. The LDCC will provide information to people within the immediate area of the outbreak.

Media

65. External communications will be coordinated through the Defra or WG Press Office.

Training and Extension

66. The NBU will engage in a training programme for beekeepers to enable them to manage the incidence of the pest in their colonies.

Review

67. On receipt of the report(s) from the LDCC, the NDCC will make an assessment if it is an isolated outbreak which may be contained. It will then make a recommendation to the LGD meeting who will then confirm if eradication should be attempted. Isolated means that the pest has only been found in a very limited number of sites in a restricted geographical area (and data from the searches shows a high probability of success in this endeavour). As the situation develops, the NDCC will update this advice to the LGD meeting. It may be necessary to extend the SIA to contend with outbreaks that spread slowly in an attempt to further slow them down and contain them geographically.

Exit plan

68. Response procedures laid down in this plan continue until SHB / *Tropilaelaps* ssp. is eradicated or the decision is taken that the pest cannot be eradicated and a management plan is introduced.

Post-eradication: surveillance

69. Bee Inspectors will revisit the affected areas, and place neighbouring apiaries under close surveillance for at least 2 years, however the length of time under which affected areas will remain under increased surveillance will be highly dependent on the nature of the outbreak. Surveillance will continue until sufficient evidence has been gathered to present to the European Commission and OIE to declare pest free status.

Widespread and Established Outbreaks – Introduction of a Management Plan

70. In the event that an outbreak proves to be established and widespread, the LGD meeting will take the advice of the NBU, discuss the prognosis and make recommendations for control using a cost/benefit decision tree to the SRO. The SRO may advise Ministers that eradication as a control method no longer remains practicable. If Ministers agree, a policy of containment will be implemented. Depending on the extent of the outbreak, the shift from eradication to containment may be very swift. The lifting of the SIA will be considered by the LGD meeting in the light of the extent and spread of the outbreak(s). This decision will be coordinated with the DG's. The NBU will then

concentrate its efforts on providing technical advice and training services for beekeepers to recognise and efficiently control affected colonies. Longer term management options for dealing with the pest will be drafted by the Strategic and Tactical Commanders for consideration by the LGD meeting.

71. Prior to announcement of the management strategy, the SIT, together with the NDCC, will draw up information for beekeepers on management of SHB/*Tropilaelaps* ssp., and the role of NBU and beekeepers in controlling the outbreak. This should be made available via BeeBase and beekeepers should be provided this advice at the time the announcement is made.

Evaluation and Review of plans

72. Field exercises test Bee Health contingency plans for exotic threats every year (Asian hornet, *Tropilaelaps* ssp. or SHB). In addition, strategic elements of the plans will be tested biennially. Lessons identified in both exercises will be fed into an annual review of plans undertaken jointly between APHA, Defra and the WG. This review will also include lessons identified from other outbreaks.
73. New policy team members will attend training within 3 months. Bee Inspectors will be trained during the NBU Technical Conference or within 3 months if joining later in the season.

Annex 1: Roles and Responsibilities of Beekeeping Associations and Beekeepers

Bee Health Advisory Forum (BHAF)

The views of the BHAF (the England/Wales government-stakeholder forum for Bee Health) and other selected stakeholders will be sought in developing and reviewing this plan and during an outbreak if required by the LGD meeting.

Advice may be sought from relevant academics to address evidence needs/issues which arise during the response.

Beekeeping Associations

Beekeeping associations will be asked to disseminate information to their members and encourage them to work closely with the NBU. They will ask their members to check their apiaries for the presence of the pest and to send any suspect samples or photos to the NBU. Beekeeping Associations will be asked if they are able to supply the NBU with a list of their members in the outbreak area.

Beekeepers

As the Healthy Bees Plan states, all beekeepers are encouraged to work in partnership and closely with Defra, APHA and WG to:

- Register all their apiaries on BeeBase;
- Make available all facilities and provide NBU Inspectors, on request, with accurate information relating to their own bees and bee colonies, including the number, location and any movements (particularly sales) of hives, bees, combs, bee products and appliances;
- Allow NBU Bee Inspectors access to their bee colonies to inspect them;
- Monitor their colonies for bee pests and diseases; and
- By law, notify the NBU if they suspect the presence of SHB/*Tropilaelaps* ssp..

Local Experienced Beekeepers

- In the event of an outbreak, the NBU will ask local associations and local experienced beekeepers to assist Bee Inspectors by providing advice to local beekeepers and local knowledge to the LDCC.
- It is envisaged that during the outbreak they will assist local beekeepers in the recognition of the pest, and to provide advice on managing their apiaries.

- They will liaise with beekeepers and the NBU, acting as a point of contact for any local beekeeper to approach if advice is needed. They will always seek assistance from an authorised NBU Bee Inspector if there is any doubt.

Annex 2: Anticipation, Assessment and Preparation

Anticipate and Assess

1. Globalisation, trade and movement of bees around the world has increased the risks to bee health in the UK. A [Pest Risk Assessment \(PRA\) is in place for SHB](#). The main risk pathways are:
 1. Movement of honey bees into the UK;
 2. Movement of alternative hosts e.g. bumble bees for pollination purposes;
 3. Trade of in hive products – in particular rendered beeswax and honey in drums post extraction from Third Country and EU origin and honeycomb and any other unprocessed wax products from the EU;
 4. Soil or compost associated with plant trade from Third Countries. Soil imported from the EU and Mediterranean countries;
 5. Fruit imports – in particular avocado, bananas, grapes, grapefruit, kei apples, mango, melons and pineapples;
 6. Movement on beekeeping clothing / equipment;
 7. Movement on freight containers and transport vehicles;
 8. Natural spread of pest itself by flight, on its own or possibly in association with a host swarm. This pathway is only applicable for the scenario that SHB is present in neighbouring countries.
2. A [PRA for *Tropilaelaps* ssp.](#) was completed in March 2012. The main risk pathways were identified as:
 1. Importation of nucleus colonies;
 2. Importation live adult bees;
 3. Movement on beekeeping equipment;
 4. Movement with honey bee swarms or other organisms;
 5. Trade in hive products.

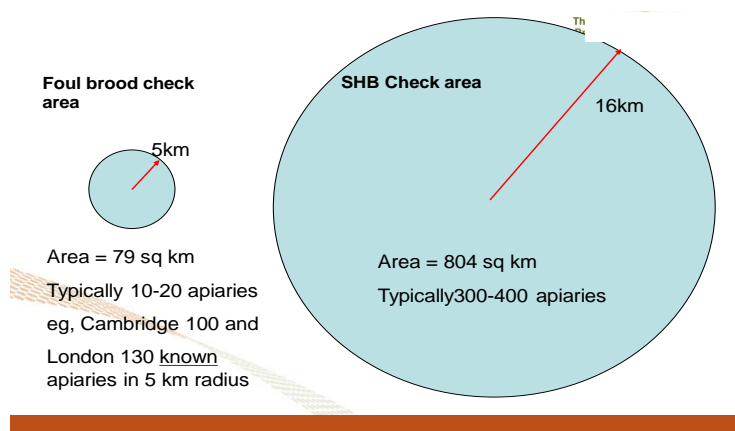
Prepare: Apiary Surveillance

Registration on BeeBase

3. Figure 3 illustrates the nature of the challenges facing NBU Bee Inspectors checking neighbouring apiaries for pests or diseases. The chances of controlling these are much greater if the location of apiaries and beekeepers' contact details in those areas are known. Without such information, diseases and pests may go undetected, possibly

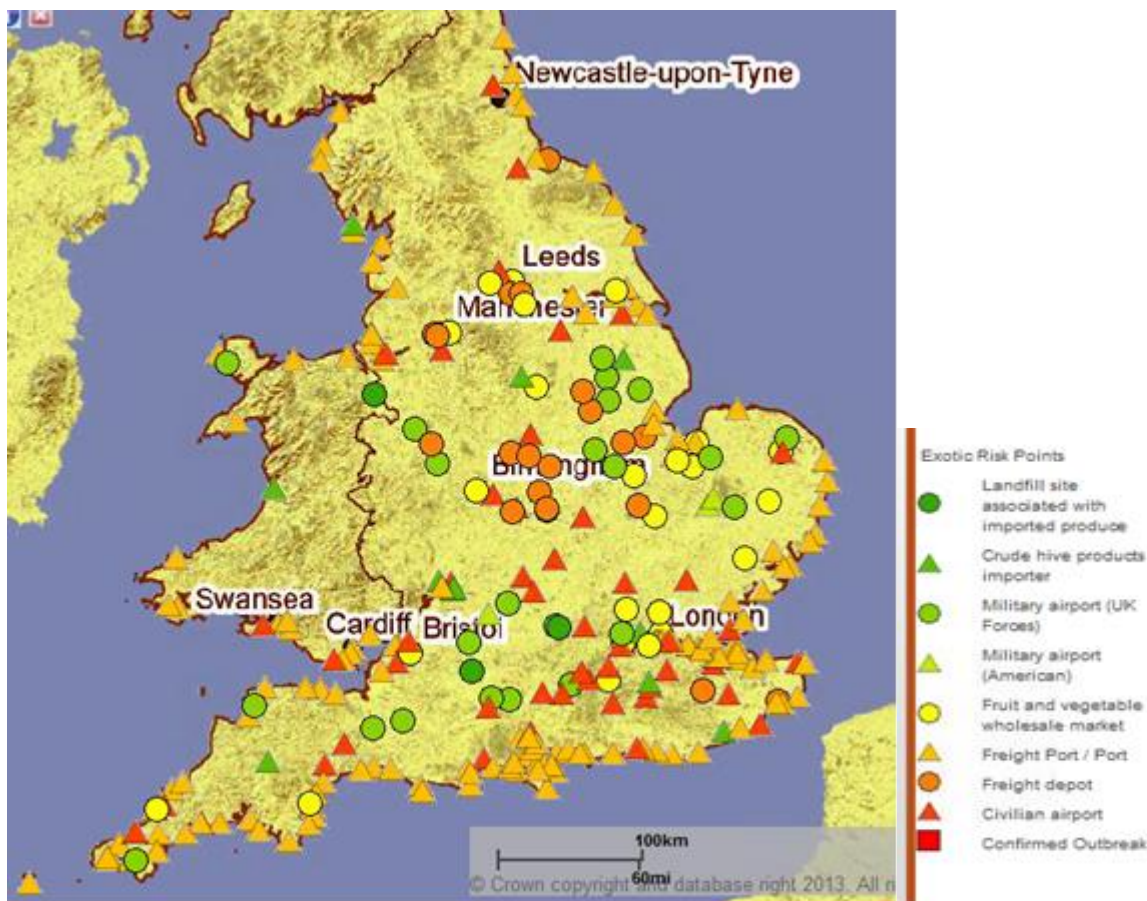
leading to their rapid spread. Therefore, all beekeepers are strongly encouraged to register on BeeBase and keep their apiary details up to date.

Figure 3 – Comparison of surveillance area for SHB/*Tropilaelaps* ssp. and foulbrood.



4. The NBU monitors for exotic pests through its Exotic Pest Surveillance (EPS) which is part of the annual statutory programme. GIS is used to target all 'at risk' apiaries for instance those near ports, freight terminals or airports, or those belonging to bee importers. A map of these risk points at figure 4. When new risk points are identified, they are added to BeeBase.
5. EPS is risk based and identified 'at risk' apiaries will be targeted and regularly inspected. Each apiary has a 'risk score' calculated mathematically from its proximity to risk sources. Surveillance is targeted at high scoring apiaries and large numbers of these apiaries are inspected annually. If an exotic pest is detected/suspected, then apiary inspections will be concentrated in the area around the apiary, and search patterns adjusted using GIS and tracings information. The NBU also carries out random EPS inspections as an element of the programme.

Figure 4 Bee Health Exotic Risk Points



Sentinel Apiaries

A group of beekeepers in England and Wales specifically monitor their honey bee colonies for exotic pest species on behalf of the NBU. These 'Sentinel Apiary' (SA) holders represent a valuable additional front-line defence against exotic pest incursion. There are about fifteen SAs in each of the eight beekeeping regions (i.e. 120 SAs in total across England and Wales). Beekeepers are selected from the NBU's BeeBase database based on their proximity to risk areas plus a few beekeepers in areas not associated with particular risk points to give a more complete regional coverage. The distribution of SAs both near risk points and at random sites maximises the likelihood of early pest detection. SA holders are provided with a monitoring and sampling kit and regularly examine their colonies according to standard protocols. Samples of hive debris are tested twice in each season for the presence of SHB and Tropilaelaps mites.

Annex 3: Glossary

APHA	Animal and Plant Health Agency
BeeBase	NBU beekeeper and apiary database and website
BHAF	Bee Health Advisory Forum
BD&PCO	Bee Diseases and Pests Control (England) Order 2006 and Bee Diseases & Pests Control (Wales) Order 2006
CRD	HSE Chemicals Regulation Directorate
CCU	Customer Contact Unit
CVO	Chief Veterinary Officer
Defra	Department for Environment, Food and Rural Affairs
DG's	Devolved Governments (Scottish Government and Department of Agriculture, Environment and Rural Development Northern Ireland)
EU	European Union
Fera	Fera Science Ltd
FOB	Forward Operating Base
FSA	Food Standards Agency
LGD	Lead Government Department
LDCC	Local DiseaseControl Centre
MS	Member States
NBI	National Bee Inspector
NBU	National Bee Unit
NDCC	National Disease Control Centre
OGD	Other Government Department
RBI	Regional Bee Inspector
SBI	Seasonal Bee Inspector
SCOPAFF	Standing Committee on Plants, Animals, Food and Feed
SIA	Statutory Infected Area
SOPS	Standard Operating Procedures
SRO	Senior Responsible Officer for Incident
Third countries	-Countries outside the European Union
VMD	Veterinary Medicines Directorate
WG	Welsh Government

Annex 4: SHB/*Tropilaelaps* spp. Key Facts

SHB KEY FACTS:

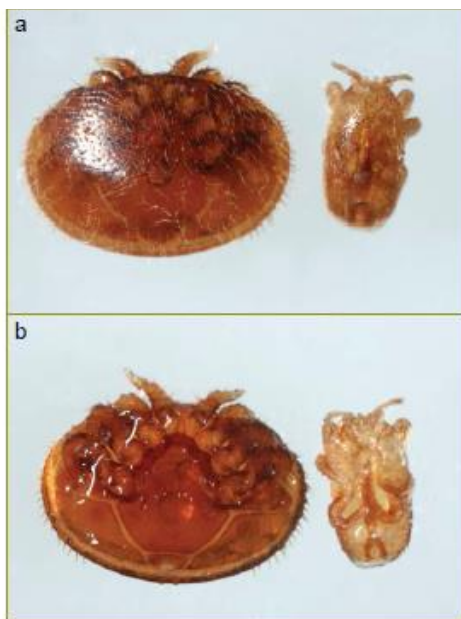
- Adult beetles are oval in shape, 5-7 mm long and 3-4.5 mm wide. Immediately after emergence they are coloured reddish-brown, but darken to dark brown or black when fully mature. They are about one-third the size of a worker bee. They have club shaped antennae and their bodies are broad and flattened;
- The larvae have characteristic rows of spines on the back and 3 pairs of tiny legs near the head (which distinguishes them from wax moth larvae). Mature larvae measure 10-11 mm in length;
- SHB eggs are about two-thirds size of honey bee eggs, white in colour and are most commonly found as masses of eggs in hive crevices or on the hive floor;
- SHB larvae do the most damage in the colony, burrowing through brood comb and consuming the brood and honey and pollen stores;
- Indigenous to Africa, it has now spread to the USA, Canada, Mexico, Jamaica, Cuba, Brazil, El Salvador, Nicaragua, Australia and Italy where it has proved it can be a very serious pest of European honey bees;
- All beekeepers need to be aware of the fundamental details of the beetle's lifecycle and how it can be recognised and controlled. Further information is available at <http://www.nationalbeeunit.com/index.cfm?pageid=125>;
- European honey bees have fewer natural defences against SHB and consequently it has far greater harmful consequences to this species. It is a major threat to the long-term sustainability and economic prosperity of UK beekeeping and, as a consequence, to agriculture and the environment through disruption to pollination services;
- Beekeepers are being asked to check their hives for signs of SHB/*Tropilaelaps* spp. If findings are suspected please contact your local Bee Inspector or the NBU via BeeBase at www.nationalbeeunit.com or by ringing 0300 3030094

Key Facts for *Tropilaelaps* spp.

- *Tropilaelaps* spp. is a statutory notifiable pest of honey bees;
- There are four different species of the mite genus *Tropilaelaps* (Acari: Laelapidae): *Tropilaelaps clareae sensu stricto*, *Tropilaelaps mercedesae*, *Tropilaelaps koenigerum* and *Tropilaelaps thajii*;
- Only two species are parasites of the European honey bee: *T. clareae* (currently restricted to the Philippines) and *T. mercedesae* (widespread in Asia);
- The natural geographic range of *Tropilaelaps* is currently confined to tropical/sub-tropical zones. *Tropilaelaps* is not currently present in Europe;

- Import regulations are the UK's main defence against the introduction of *Tropilaelaps* mites. The movement by the beekeeper of infested colonies is the principal and most rapid means of spread within a region;
- The European honey bee lacks the behavioral defences of the Asian honey bee against *Tropilaelaps*;
- *Tropilaelaps* feed on bee brood – their mouthparts cannot pierce the body wall membrane of adults. In a severe infestation up to 50% of the developing brood may be killed;
- Bee brood is needed year-round for *Tropilaelaps* to survive and spread. Broodless colonies in winter are a limiting factor to its establishment in the UK, although in the warmer south and east where colonies have brood year round they may be able to survive;
- The body of the *Tropilaelaps* mite is elongated. It is a fast running mite, moving rapidly across brood combs. This is a feature that marks it out from the much slower *Varroa* mite, which is larger, crab-shaped and wider than it is long;

Figure 5a and 5b. Dorsal (5a) and ventral (5b) views of *Varroa* (left) and *Tropilaelaps* (right)



- For information on how to identify *Tropilaelaps* please see the guidance and information on the NBU's website BeeBase <http://www.nationalbeeunit.com/index.cfm?pageid=92>;
- The NBU operates a SA programme comprising approximately fifteen SA in each of the eight beekeeping regions (i.e. 120 in total across England and Wales), which are in both 'at risk' and random areas to maximise the likelihood of detection. Beekeepers at these apiaries monitor their colonies for exotic pest threats to honey bees, including *Tropilaelaps*, on behalf of the NBU.

Figure 6 Map of Sentinel Apiaries and Bee Health Risk Points

