

Handling and Examining a Colony of Bees

Preparation

- Always have a reason for examining the colony.
- Keep colony records and consult them prior to examining the colony so that you know the priority actions and can prepare suitable equipment in advance.
- Have with you a bucket of washing soda solution to clean your gloves and hive tools between frames or colonies, and a sealed container for scrap wax.
- Be certain that all circumstances are suitable to examine the colony. Do not start your examination if the weather is likely to be adverse or if there are people or animals in the vicinity. Note also the forage conditions as this will affect the disposition of the bees.
- Before opening the colony make an assessment from the outside e.g. are the flying bees behaving normally, are there significant numbers of dead bees outside the hive, are pollen and nectar being brought in.
- Before opening the colony know where all of the hive parts will be put and have all of the equipment you will need to hand.
- Light the smoker away from the hive and ensure that your veil is not likely to be affected by any sudden flare-up from it while lighting.
- Use smoke sparingly to control the bees rather than the 'let them know you are coming' approach. Smoke from the top downwards rather than from the bottom; smoking from the bottom drives the bees upwards.



Smoke from the top. Photo by David Wootton.

Opening the hive

- Remove the roof and any supers and place them in a neat stack close to the front of the hive; they will tend to attract the returning bees and make inspection easier.
- Carefully remove the queen excluder and check to ensure that the queen is not on it.
- Clean up any brace comb or propolis on the queen excluder at this stage so that you are able to quickly re-assemble the hive if necessary.
- Make sure that any brace or burr comb is placed into a sealed container that you can take away with you; do not discard it on site as it can set up robbing and is an agent for spreading disease.
- Be quick, calm and methodical throughout your examination of the colony avoiding any sudden or sharp actions.
- Carefully remove either an end frame or dummy board, if there is one, to give space to easily remove or move the other frames without damaging the bees. After inspecting to see if the queen is on it place it in a safe place at the front or side of the hive, preferably not in direct sunlight.

What to look for and what to do

- Examine each comb thoroughly enough for the purposes of your examination i.e. if you are looking for eggs, look for eggs;

if you are looking for disease, look for disease; if you are checking for feed status, check that honey stores are sufficient.

- Where possible, always replace combs in the same sequence and the same orientation as they were at the start of the inspection.
- The top and side bars of each comb should be kept clean by scraping off any wax or burr comb.
- Unless you are moving frames to the outside of the brood box with a view to removing them from the hive at the next inspection do not split the brood.
- Any new, undrawn frames that need to be added should be put to the side of the brood nest and not in the middle of it. Only do this when conditions are right for them to be drawn.
- If you suspect disease is present in the colony make certain that you do not cross-infect another colony. Clean your gloves and all hive tools, changing your gloves if necessary.

- If the disease is notifiable, i.e. EFB or AFB, reduce the entrance to minimise robbing by bees from other colonies and notify your appointed bee inspector.

Foul brood (and other brood diseases) can be identified by reference to the Fera brochure *Foul brood Disease of Honey Bees*, also available on the National Bee Unit (NBU) website.

Consult the Fera NBU brochure *Managing Varroa*, which gives full details of virtually every effective varroa control technique (this is also

available on the NBU website www.nationalbeeunit.com).

- Aim to have healthy bees with minimum varroa levels to go into autumn and winter. They will have a higher chance of surviving winter and helping the queen to raise brood in the new year.
- If you have concerns about *Nosema spp*, consult the NBU laboratory at Sand Hutton or your association microscopist who will help you identify the presence or otherwise of nosema.
- Changing combs can make a big difference in keeping pathogen numbers down and therefore controlling chalk brood disease and sac brood; requeening from a different strain can also often help.

Closing up

- Re-assemble the hive making sure that frames are tightly pushed up together to provide the correct bee space.
- Ensure that the hive is stable on its stand or the ground and that it is properly assembled with no gaps between boxes.
- Check that the site is clean and tidy and make the notes on your record card before leaving the site.

NBU Best Practice Guideline