Apiary Hygiene

This is the first in a series of articles promoting bee health and we make no apology for starting with something so basic. European Foulbrood (EFB) is spread by bees and beekeepers, and American Foulbrood (AFB) is mostly spread by the beekeeper. Other non-notifiable diseases such as chalkbrood and nosema can also be spread by poor apiary hygiene and therefore good practice in this area is fundamental to promoting healthy colonies.

Equipment

- Beesuits should be clean and washed using soda crystals after each use (half a cup of soda crystals added to each wash), and definitely between visits to different apiaries
- Boots should be cleaned in a solution of soda crystals before going to different apiaries
- Have a bucket of soda crystals in water to wash hive tools between inspecting hives

When cleaning using soda crystals use a concentration of 1 part soda crystals to 5 parts water. You can add a dash of washing up liquid to help remove propolis. NB don't use soda crystals in aluminium containers – it erodes the surface of the metal.

- Change disposable gloves between hive inspections. Leather gauntlets should really be avoided – they harbour pathogens
- Cover cloths are not a good idea as they too can spread disease
- Beware of second hand equipment – AFB spores in particular can last for decades and chalk brood spores can survive for up to 15 years
- If buying bees make sure your source is reputable (preferably local) and bees are disease free
- Store used brood frames after acetic acid fumigation
- Clean all equipment (boxes etc) before reuse by scorching or disinfection
- Brood comb accumulates pathogens and should be changed every three years
- Frames can be reused after scraping off as much propolis and wax as possible, cutting out old comb and then boiling the frames in water containing soda crystals at the above concentration (water needs to cover the frames). Frames should be boiled for a minute or two and then rinsed in cold water. Old comb and scrapings of propolis and wax should preferentially be destroyed by burning.

DSBA Apiary offers a frame cleaning service for members and dates are advertised in the monthly newsletter

Apiary

- Arrange hives to minimise drifting (this will be covered in a future newsletter)
- Have a tin / box to collect brace comb and propolis rather than throwing on the ground
- Minimise robbing (this will also be covered in a future newsletter)
- Don't leave frames of honey out in the open
- Bees will forage around comb and equipment left lying out so don't leave old comb lying around
- Make sure colonies are not diseased before moving frames of brood between colonies or uniting colonies
- Don't feed bees honey (unless it's their own)
- If giving wet supers back to bees after extraction make sure you give the supers back to the colony they came from
- Avoid lengthy inspections when there is no flow and bees are looking for other forage as this will encourage robbing

Swarms

- Quarantine swarms of unknown origin (ideally the quarantine apiary should not be within 3 miles of another apiary)
- Hive swarms on new foundation
- Don't feed a swarm for 2-3 days so any infected honey carried with them is used to make wax and not laid down as stores
- Consider treating with Api-bioxal as swarms are initially broodless.

The Bee Healthy Team
Dunblane & Stirling Beekeepers' Association
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