

Doing a disease inspection

Miss Lorraine Johnston. SRUC Bee Advisor

Why is it important?



- To check our bees health
- So we can deal with any problems
- So we can prevent the spread of disease

How To do A Disease Inspection

Preparation

- Prepare a solution of soda crystals, washing up liquid and water
- Have a metal scrubber to clean tools
- Clean and sterilised suits and tools
- Disinfect boots with a solution of Virkon
- Wear two pairs of gloves. Have a pair of disposable gloves on top
- Always do any bad tempered or suspected hive last



How To do A Disease Inspection

- Lightly smoke the front of the hive
- Carefully remove any supers
- Remove the queen excluder
(if not in use all boxes will need checked)
- Check for the queen
- Pull out the dummy board or first frame
- Always check for the queen, dark side first
- Shake off the bees with a sudden stop



How To do A Disease Inspection



- Place the frame/ dummy board at the front of the hive
- Always checking for the queen shake all the bees off the frames
- Inspect all frames and all brood cells of the frame (a frame of food can be put back)
- Check any perforated cells

How To do A Disease Inspection

- Check for healthy brood or other brood diseases such as chalk brood or sac brood
- Use smoke if needed
- If you see the symptoms of EFB or AFB take a picture if you can, and email the bees mailbox



Diseases to watch out for



Notifiable disease

Foulbroods

- EFB
- AFB

Others

- Nosema
- Chronic bee paralysis
- Sac brood
- Chalkbrood



Bee disease recognition/ Apiary guides



Inspections and notifiable diseases

Bees_mailbox@gov.scot



- **You** are our best surveillance!
- Learn how to do a full brood inspection
- Learn how to identify brood diseases
- Differentiate between common and notifiable
- At least two full brood inspections a year
- Report suspicion of disease
- Learn which ones are the notifiable pests and how to identify them

Prevention

Prevention/ Hygiene

Disease is caused by pathogens and stress!!

- Clean bee suits and other clothing
- Clean gloves
- Clean hive tools etc.
- Clean Hive equipment
- Replace brood comb regularly



Greatest risks of introduction of Pathogens



- Transferring combs of brood
- Transferring combs of honey
- Leaving combs out to be cleaned
- Feeding honey
- Second Hand Equipment
- Buying Bees!
- Swarms of unknown origin
- ***Do it at your peril!***



Prevent Transmission



Good apiary practice

- Keep apiary clean
- Regularly clean equipment
- Hive open for minimal time
- Don't squash bees
- Quarantine swarms and bought colonies
- Sterilise drawn comb



Particularly if you use shared extraction equipment

Double clean the extractor using a bleach solution first, then with washing liquid, then rinsing thoroughly

Good Practice to reduce the impact of Pathogens



- If pathogens escalate it could cause a huge **impact** with lost honey production, pollination and beekeeper numbers
- Improved husbandry **decreases** the risk of a pathogen taking hold, honey production and pollination increasing significantly

Better Bees – More Honey – Better Beekeeper –
Sustainable Pollination



Chemical sterilisation with disinfectants

- Brood boxes, supers and other beekeeping equipment can be effectively sterilised using disinfectants containing hypochlorite
- Sodium hypochlorite is present at a concentration of about 3% in household bleach.
- Research has shown that immersion for twenty minutes in a solution of 0.5% sodium hypochlorite kills AFB spores and other bacteria.



Swarms

SWARM CONTROL:

Public Nuisance

Disease spread

- Feral colonies
- Responsible to collect
- Public Nuisance
- Isolate for 6 weeks
- Fresh foundation
- Inspect & treat



Further information can be obtained from



E-mail Lorraine.Johnston@sruc.ac.uk

Tel- 07795101861

BeeBase www.nationalbeeunit.com

You tube playlists

<https://www.youtube.com/channel/UCRaE5UJlcBEXPZFpYACjErg/playlists>

Podcast <https://player.captivate.fm/episode/b031e430-eb19-45d5-a439-57bb9a04792d>

<https://player.captivate.fm/episode/31f89a0a-7262-46dd-bff3-3a572d9dc843>

Feedback

https://forms.office.com/Pages/ResponsePage.aspx?id=mC1UyEzmbkS41QyY_-VIJp1l9LJf5atBjEazVFFwtU9UNkhQUEIEN01MRDJBTUQ5OTg5VE83RUpxSCQIQCNOPWcu

Reporting notifiable disease Bees_mailbox@gov.scot



**Further information can be
obtained from**



- E-mail

Lorraine.Johnston@sruc.ac.uk

Tel- 07795919209

- BeeBase on line

www.nationalbeeunit.com