BEST MANAGEMENT PRACTICES TO PREVENT THE SPREAD OF PESTS AND PATHOGENS IN HONEY BEE COLONIES



Many pest and disease problems in managed honey bee hives can be avoided by practicing good sanitation and cultural controls. Prevention is the first and best line of defense against organisms that can harm your colonies.

Sanitation and Sterilizing Equipment

- Tools should be scrubbed with isopropyl alcohol and sterilized with flame before taken to another beekeeper's apiary. Avoid using other beekeeper's tools that have not been properly cleaned.
- Clothing and gloves that are exposed to a hive where disease is suspected needs to be scrubbed and disinfected with 10% bleach solution or disposed.
- If not using gloves, rinse hands with rubbing alcohol then scrub with soap and water after working in a hive that appears to have been infected with disease.
- When disease is suspected, practice the previously mentioned steps between working hive to hive in the same beeyard.

Cultural Controls

- When purchasing a bee colony, find out if the seller has been treating with antibiotics for pathogens. Treated colonies could already be infected with disease, even in the absence of symptoms.
- Never switch frames from a hive that is suspected to have a pest or pathogen problem to a hive that is healthy.
- Do not purchase or accept used frames, boxes, or other beekeeping equipment unless you are certain they are free of disease.

Genetic Controls

- Purchase stock that is resistant to Varroa mites; these are often labeled as bees with Varroa Sensitive Hygiene (VSH) or Minnesota Hygienic bees.
- Breed your own queens from stock that demonstrate hygienic behavior.

Mechanical Controls

- Utilize drone brood trapping to control Varroa mite infestations (see Figure 1).
- Plug holes and crevices in boxes to prevent arthropod pests from entering colonies.

Monitoring Colony Health

- Check brood comb for symptoms of American foulbrood, other brood diseases and the presence of a laying queen at least once a month.
- Monitor Varroa mite presence using a sticky screen (see Figure 2), ether roll or powdered sugar roll monthly.
- Keep your Varroa load below 5% of the honey bee population if you are a hobbyist beekeeper; commercial operations should keep Varroa mite below 3%.

Preventing Robbing

- Put a robber screen on the front entrance of your hives during time of nectar dearth (see Figure 3).
- Keep your apiary tidy. Don't throw burr comb or propolis on the ground.
- Put unused equipment in a bee-proof location or seal your unused hives so that bees cannot enter.

Community Resources

- Join a local beekeeping club to sharpen your skills.
- Report abandoned apiary equipment and all suspected cases of American foulbrood to UDAF.
- Renew your beekeeping license every year to be kept up to date about disease outbreaks and other beekeeping issues.

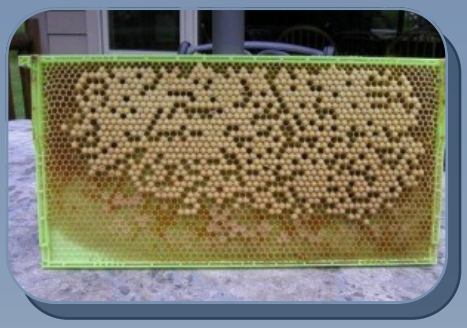

Fig. 1 Drone Brood Trap: **Removing drone brood from the hive is an effective means of reducing your Varroa mite load.**

Fig. 2 Sticky Screen: **A sticky screen can use used with hives to monitor the colony's Varroa mite population.**

Fig. 3 Robber Screen: **Robber screens are effective tools used to prevent or reduce robbing bees from entering your hive.**

Utah Department of Agriculture and Food Apiary Program

For more information visit:

http://ag.utah.gov/plants-pests/beekeeping.html

To request a health inspection call: (801) 538-4912

References:

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