

## Resource Sheet

### Honeybee Diseases

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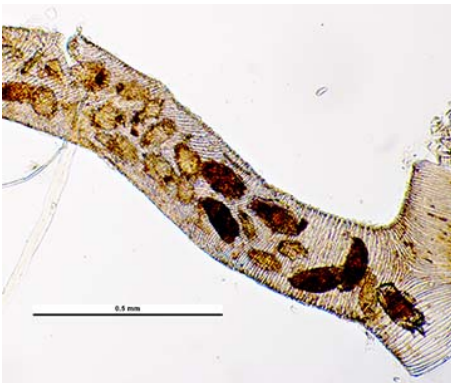
#### Varroa Mites



Field tests:

- Powder sugar shake
- Mite drop procedure
- Visual sighting on pupa and on bees
- Test kits, commercially available

#### Tracheal Mites



Indications:

- Bees unable to fly, crawling in front of hive
- Seeming to be out of breath (which they are)
- Bees appear to be lethargic
- Inconclusive, signs may be for other diseases
- Microscopic examination is most reliable

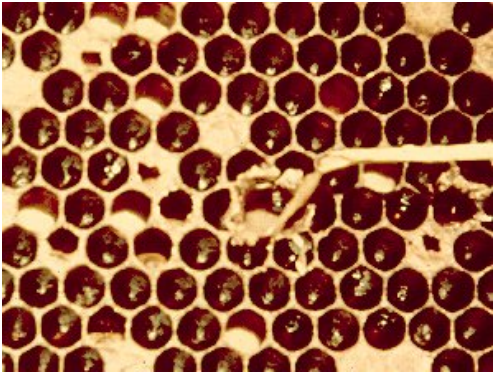
#### Nosema



Indications:

- Brown stains (fecal matter) or "trails"
- Microscopic examination is most reliable

## American Foul Brood



### Indications:

- Coffee color, ropey with a fine thread about 2.5cm
- Odor: sulfurous, “chicken house”
- Scale: brown to black, brittle
- Stage of Brood: after capped
- Appearance: chocolate brown to black, perforated cappings

## European Foul Brood



### Indications:

- Can be slightly ropey with threads less than 1.5cm, but usually not ropey.
- Odor: sour or none
- Scale: brown to black, rubbery
- Stage of Brood: before capped
- Appearance: twisted, dull to yellow to dark brown, tracheal tubes often visible

## Chalk Brood



### Indications:

- Infected larvae have been uncapped by the bees
- Easily removable from cells
- White or grey mummy like appearance
- Present on floor of hive or at or in front of entrance

## Sac Brood



### Indicators:

- Pin head puncture on cell capping
- Larvae have darkened head and color transitions from yellow to brown to black
- Larvae have a “canoe” shape
- Easily removed from cells with tweezers

## Wax Worms



### Indicators:

- Sighting of the adult wax moth
- Presence of wax moth larvae
- Extensive webbing, fecal matter

## Web Links

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Diagnosis of honeybee diseases:

<https://www.ars.usda.gov/is/np/honeybeediseases/honeybeediseases.pdf>

Field guide to identification of diseases: <http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/bees/a-guide-to-the-field-diagnosis-of-honey-bee-brood-diseases>

Varroa mite life cycle: <http://articles.extension.org/pages/65450/varroa-mite-reproductive-biology>

Tracheal mite life cycle: [http://entnemdept.ufl.edu/creatures/misc/bees/tracheal\\_mite.htm](http://entnemdept.ufl.edu/creatures/misc/bees/tracheal_mite.htm)

Foul brood diseases of honeybees: <http://www.nationalbeeunit.com/index.cfm?pageid=88>

Medication chart: <https://www.brushmountainbeefarm.com/be-medication-chart>

Wikipedia, honeybee diseases: [https://en.wikipedia.org/wiki/List\\_of\\_diseases\\_of\\_the\\_honey\\_bee](https://en.wikipedia.org/wiki/List_of_diseases_of_the_honey_bee)

## Publications for Further Study

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American Bee Journal

Bee Culture magazine

ABC and XYZ of Bee Culture

The Hive and the Honeybee

Natural Beekeeping by Ross Conrad

Top Bar Beekeeping by Les Crowder

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