

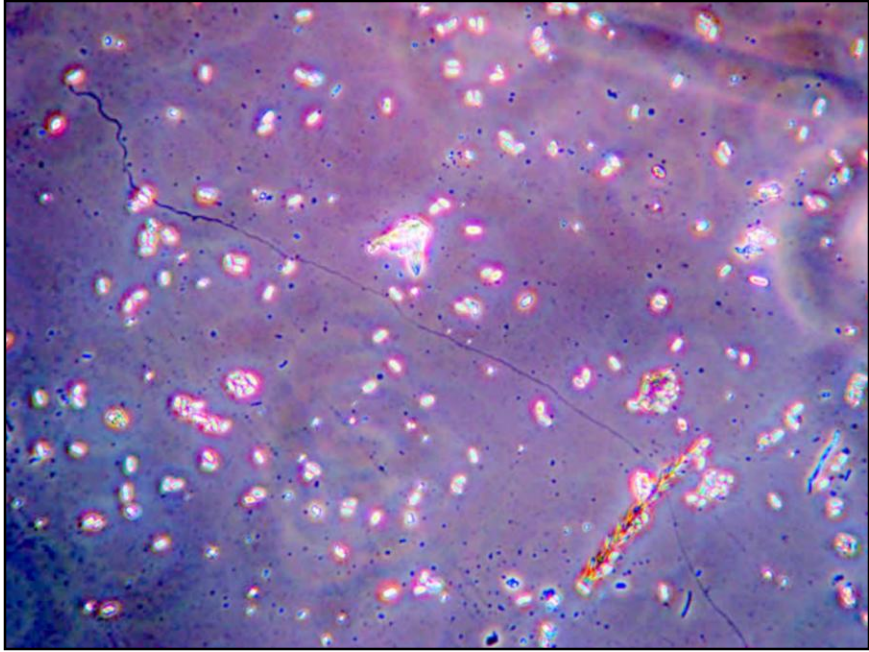
Affects adults

Transmitted by :contaminated food ,water,comb or trophallaxis

Microsporidian fungi



Adult workers are affected  
Can have both cerana and apis



N.Apis-fall and spring  
No cleansing flights  
Poor build up



Highlights:

- Pierre** – There are two specific strains: - What are they?
- Julia** - Spread by cleaning fecal matter and sharing food. True/False.
- Snow** – Is it a microsporidia virus?
- **Ashley** - It is a disease of the mid \_\_\_\_\_?
- Anyone** - Heavily infected worker honey bees can contain an excess of 50 million spores. True/False.
- Matt** - Damaged intestinal tissue is subject to secondary infections and dysentery (brown diarrhea spots on the combs and exterior of the hive) is a common sign of infection with *Nosema apis*, but not seen with *N. ceranae*. True/False.
- Patsy** - Bees that ingest spores when they are less than a week old don't digest food well and are not capable of producing brood food secretions. True/False.
- Tali** – Can their life spans can be reduced drastically?
- Brenda** - Infected bees tend to skip the brood rearing and become foragers. True/False.
- Lorrie** - When high percentages of workers are infected and spore counts exceed ten million spores per bee, significant numbers of colonies will die or lose queens during the winter. True/False.
- Coco** - With *Nosema apis*, the spike in the level of infection normally occurs in late winter/early spring, then resolves as the weather improves and the bees defecate outside the hive. True/False.
- Anyone** - What about *Nosema ceranae*?
- Elizabeth** - *Nosema ceranae* has become the dominant species, infection and spore levels can be elevated all year. True/False.
- Maureen** – what will the effect be on honey yields?



Crawling at entrance

Un coupled wings

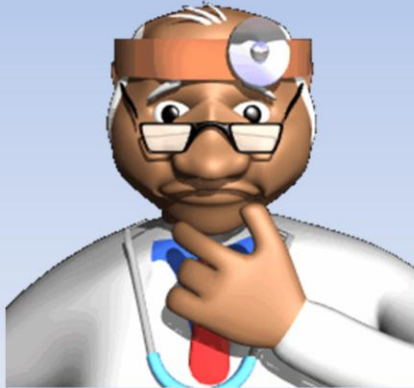
Poor build up

Queen superscedure

These symptoms are also indicative of :pesticide poisoning or viruses

Dysentry and feces are only indicative for N.Apis

1. Collect older bees for lab test.
2. Freeze for 48 hours in paper bag.
3. Send to Paul van Westondorp, Provincial apiculturist.
4. Send equipment to Iotron.
5. Fumigillan B
6. Prevent robbing.
7. Use caution when moving/swapping bees and equipment.
8. Never leave used equipment around for foraging bees to access.
9. Use hygienic practices. E.g. visit suspect hives last.

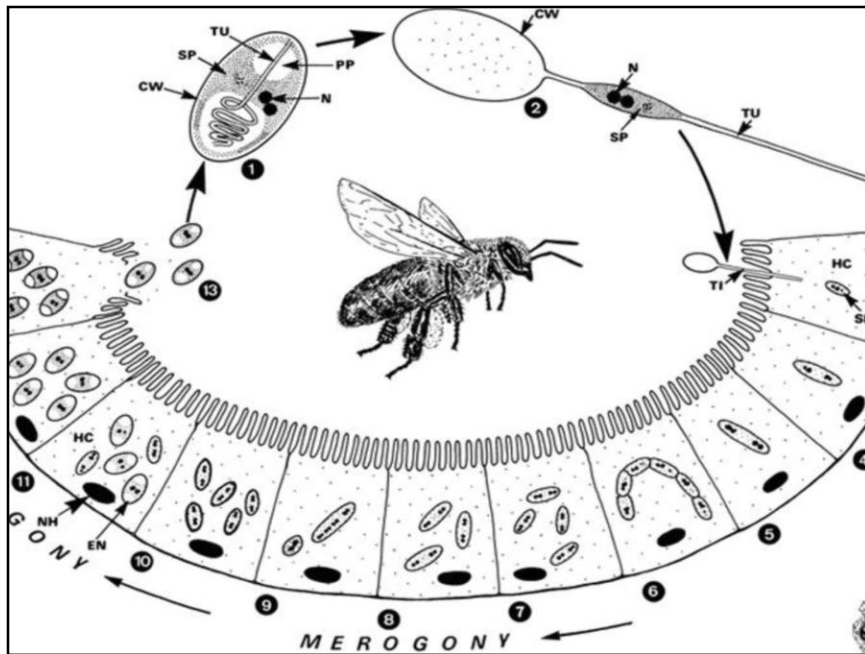


Caused by stress

Use IPM:

Enter winter strong ,good queens and stores , keep warm

Use entrance reducers –drafts



N Apis-one million spores per bee

Fumagillan b –antibiotic

Supresses growth

Does not kill spores

Merogony ;a form of a sexual reproduction

A parasitic protozoan replicates its own nucleus inside its hosts cell,and creates cell segmentation



N cerana –no seasonal trend  
No outward symptoms  
Synergistic relationship and neonics