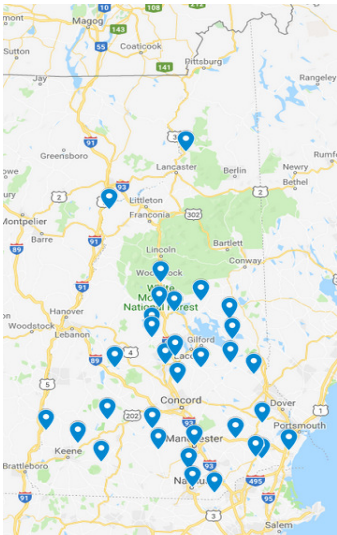




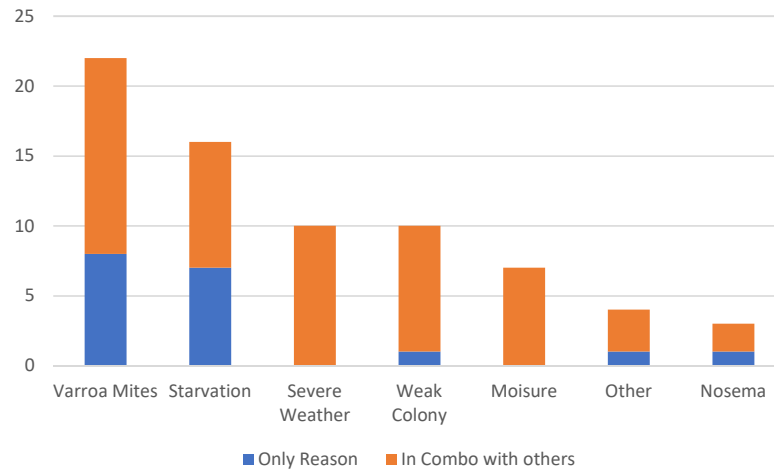
2018-19 Winter Deadout CSI Analysis

Deadout CSI Highlights(1)



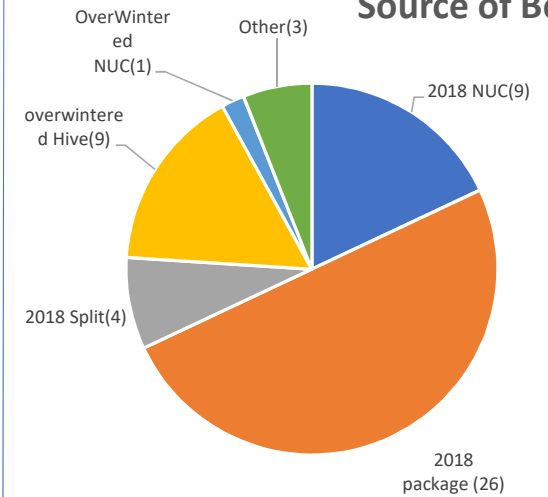
- 40 apiaries
- 48 Hives/4 NUCs
- 9 counties
- 32 towns (+ 2 unknowns)

Reason For Deadout



- Varroa & Starvation were the most common “reason” for deadout
- “Middle” of the state had many hives with frozen capped brood

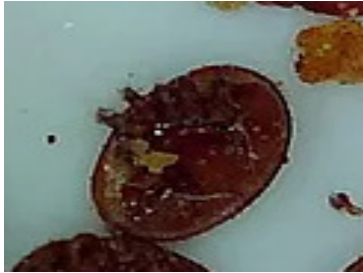
Source of Bees



- Hives started from 2018 packages were the most common loss

Generally, the “reason” given matched the observations listed - good mix of CSI experience

Deadout CSI Observation Highlights



Varroa Observations

- 27 of 37 (73%) that did alcohol wash on deadout had 3 or more mites
- 37 hives were treated in 2018
- Most common treatment time Sept.

Other Observations

- 3 hives report animal damage
- 2 report mouse damage



Brood Observations

- 10 reported capped brood
- Mostly middle of the state Concord → Lakes region



Nutrition Observations

- 10 hives – no pollen or honey
- 4 hives – no honey, some pollen



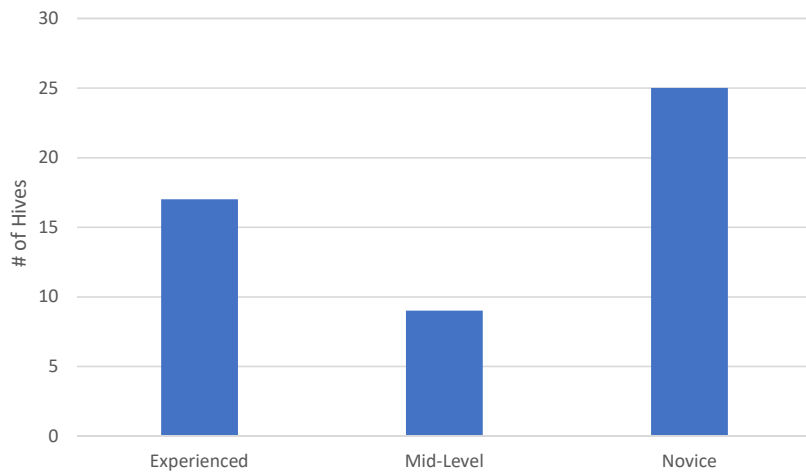
Varroa mite attached to adult bee showing symptoms of deformed wing virus (DWV). © Bayer Bee Care Center, Bayer AG | Source: Brochure ««The Varroa mite»»

Virus Observations

- No Deformed Wing reported
- 1 reported hairless bees
- 2 reported K-wing
- 6 reported “stubby abdomens” (DWV?)
 - 1 additional listed “small bees” in comments

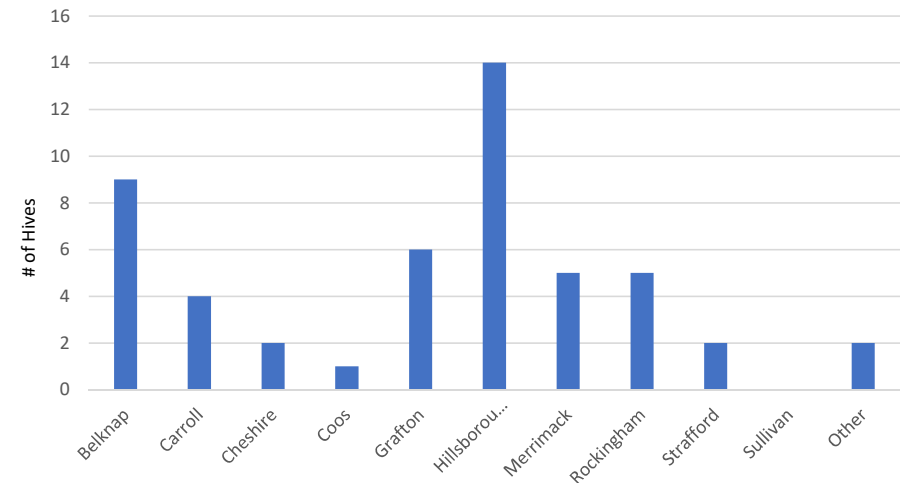
CSI Location & Experience

CSI Experience Level



38 Apiaries = 46 Hives + 4 NUCs

Reports By County

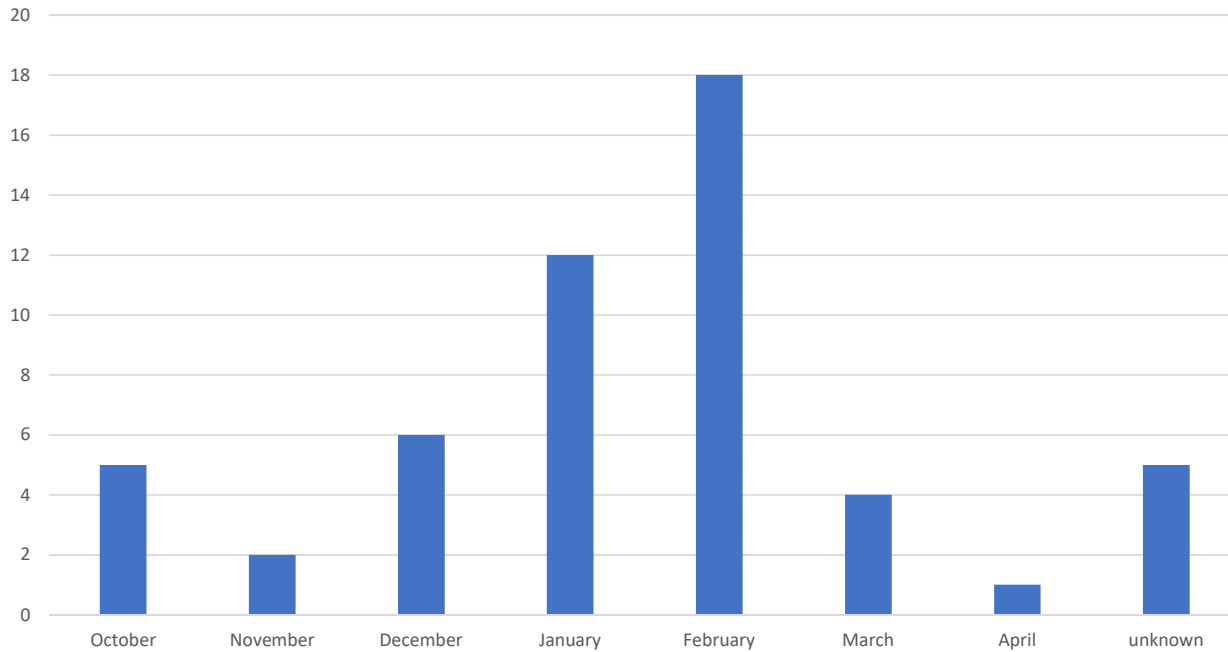


- 9 of 10 counties represented
- 30 Towns + 2 unknowns (Wisconsin & Kent)

Good mix of CSI experience along with apiary location

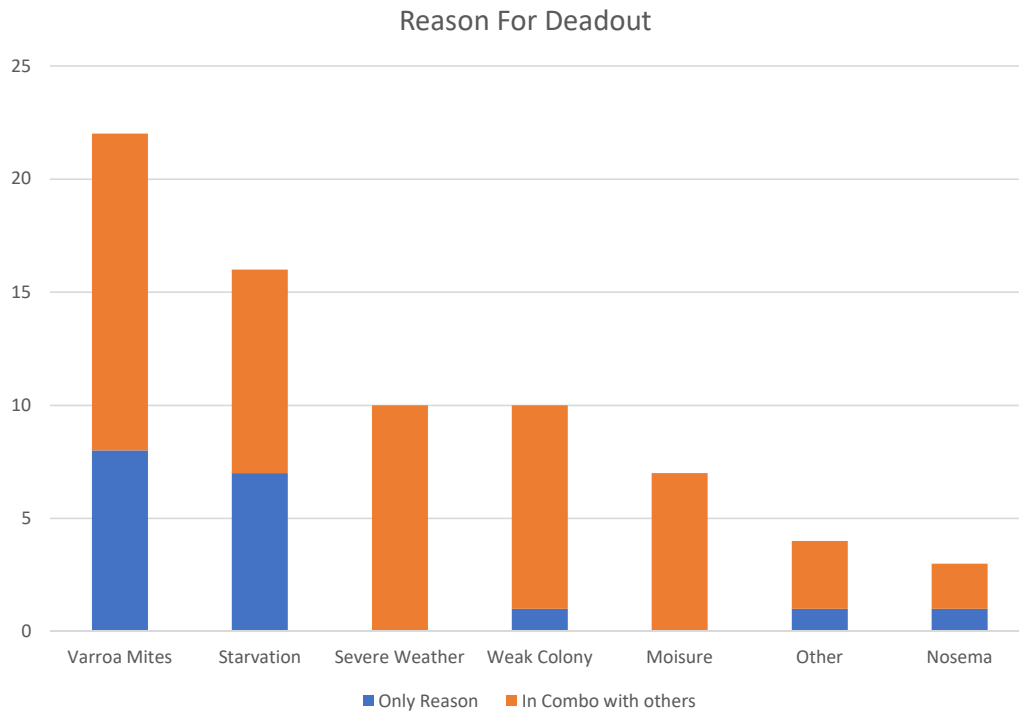
When was the last time you saw the hive/NUC alive?

Last Time Alive



	Last Time Alive
October	5
November	2
December	6
January	12
February	18
March	4
April	1
unknown	5

Reason For Deadout

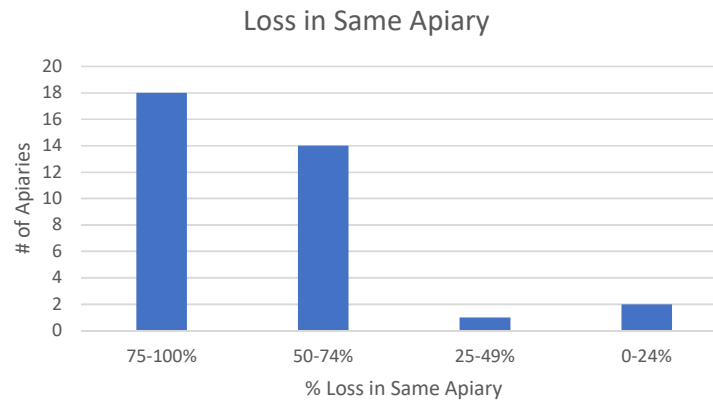
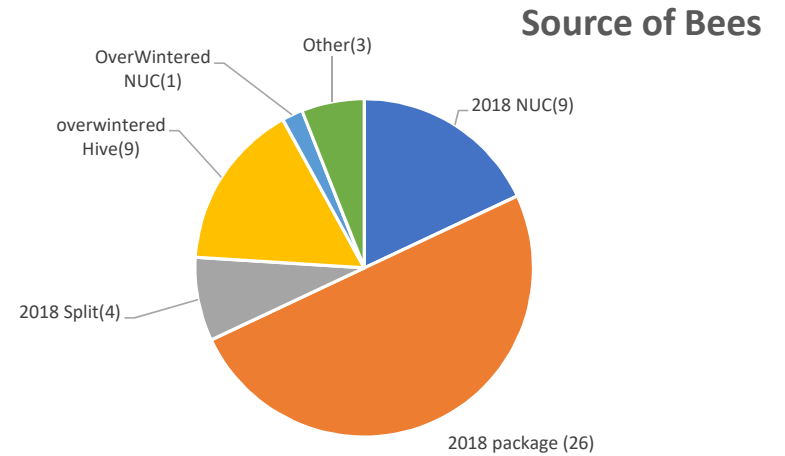
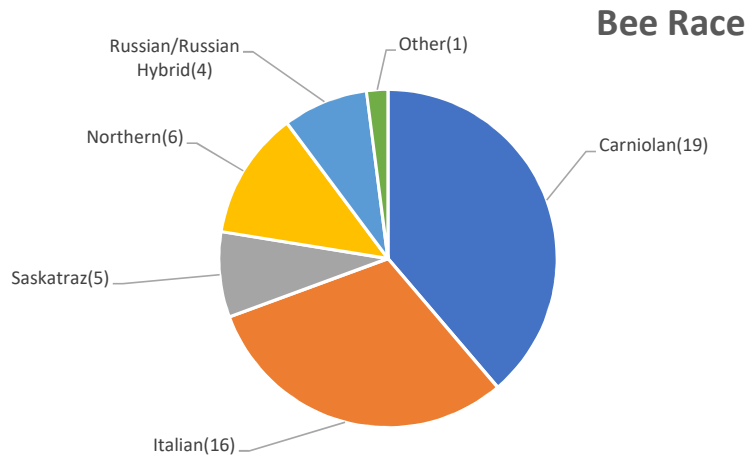


*Other:

- Queen problems
- Possible exposure to pesticide
- Small bees (varroa?)
- Nutrition
- No pollen

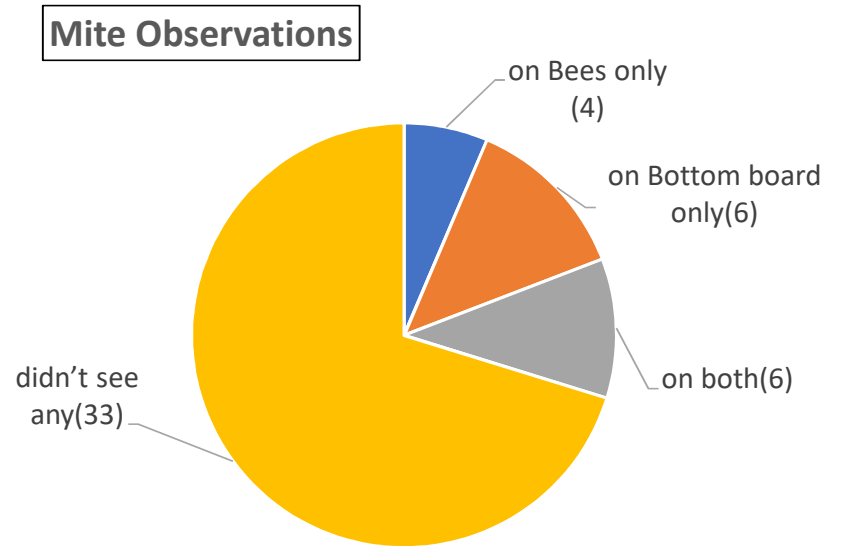
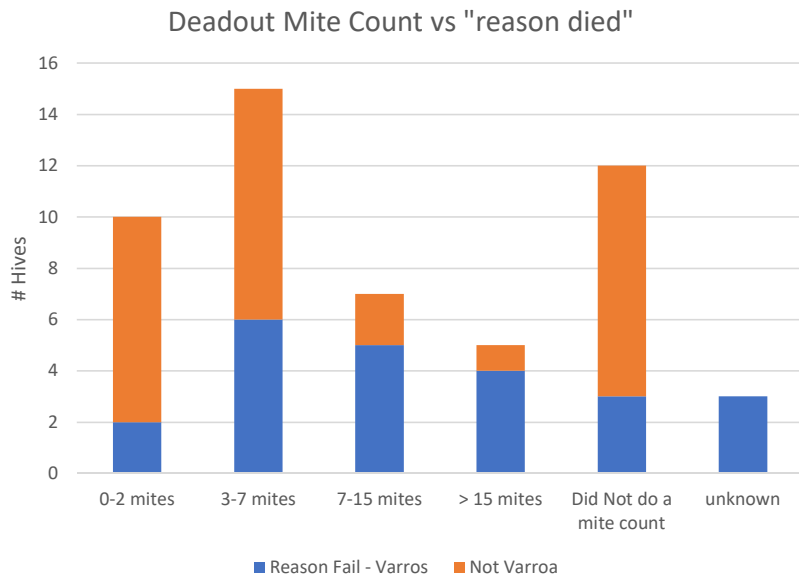
Many hives had multiple “reasons” listed.
Generally the observations support the “reason” given

Bee Race & Source



- Hives started from 2018 packages were the most common loss
- Average of 3.5 hives/apiary
- Overall 66% loss across these apiaries

Deadout Observations - Varroa

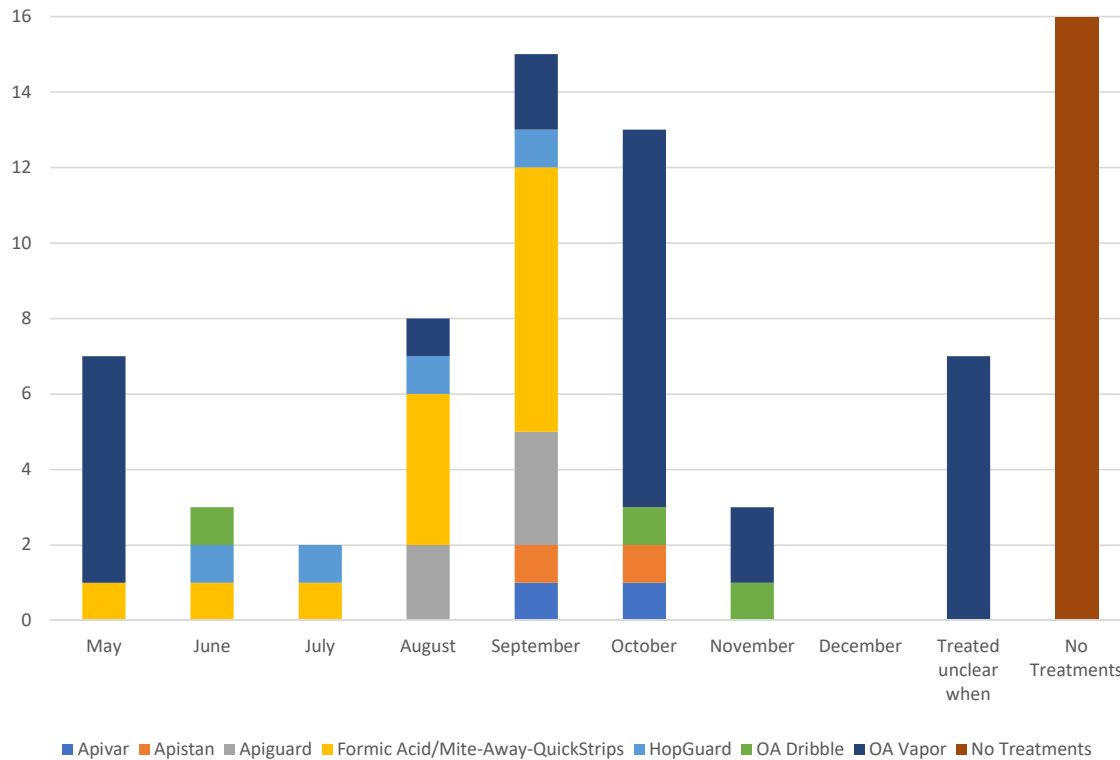


27 of 37 (75%) that did alcohol wash had 3 or more mites/300 bees

Note – how few hives observed mites on the bees/bottom boards

Varroa Management During Season

Treatments By Month



Treatments:

- 37 hives were treated at least once;
- 15 hives not treated

Mite Counts:

- 24 counted mites (5 > 1 time)
- 18 didn't count
- 8 unknown

Large percentage of hives were treated.

Most common treatment time was Sept.

Nosema & Swarming

Nosema

Deadout Testing: 5 hives: counts

- 10.6M, 100K, 400K, 0,0

Treatments:

- 41 hives/NUCs – did not treat for Nosema

- 2 hives treated in spring + fall

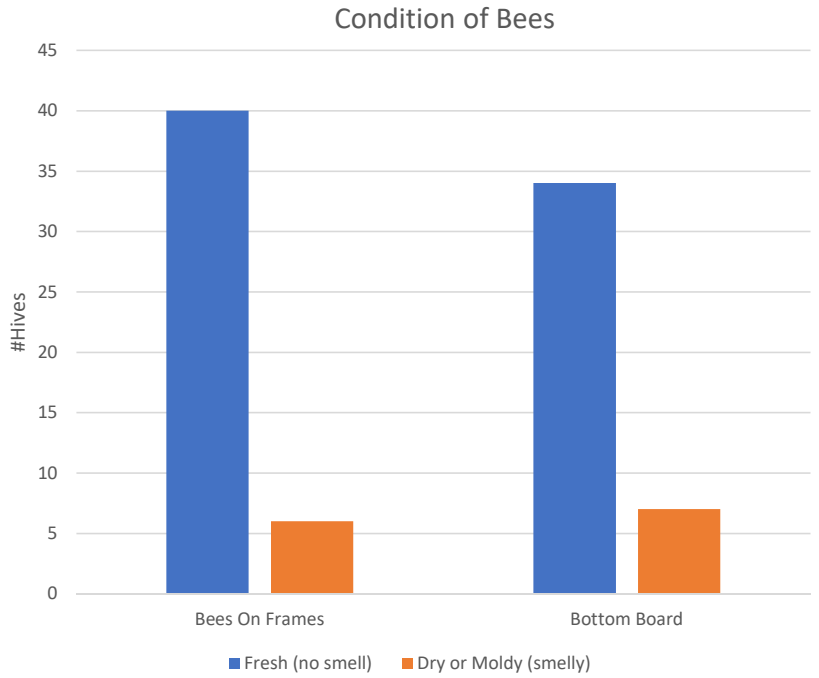
- 2 NUCs treated in fall

Swarming

	Swarm Month
May	1
June	2
July	1
August	2
September	1
Did NOT Swarm	35

1 Hive with High Deadout Nosema Counts, Some Late Swarms

Condition of Bees



Other Observations:

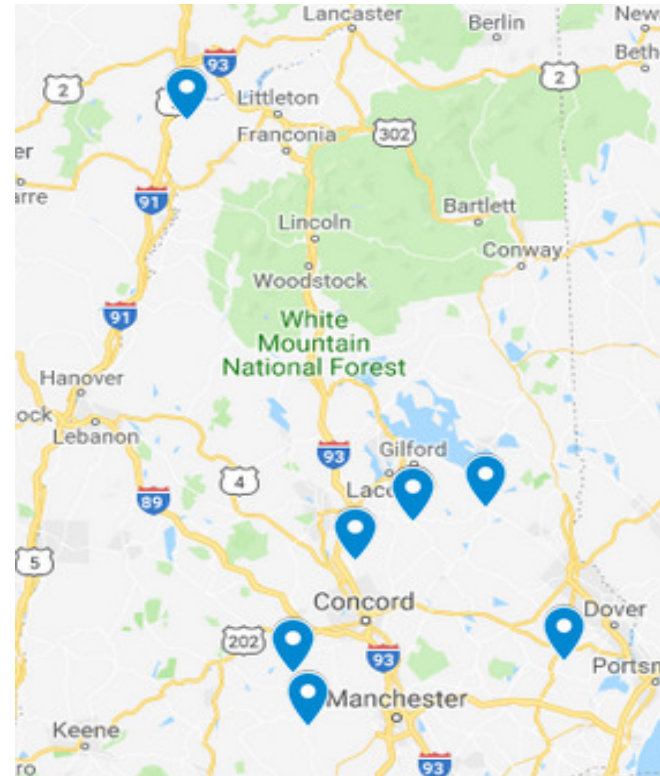
- **No DWV:** observed
- **Hairless Bees:** 1 hive
- **K-wing:** 2 hives
- **“Stubby abdomens”** : 6 hives
 - All 6 listed “varroa” as a reason for death
 - Note: One additional hive listed “small bees” in comment column

Alcohol Wash count	# hives with stubby abdomens
➤ 15	1
7-15	1
3-7	2
0-2	2

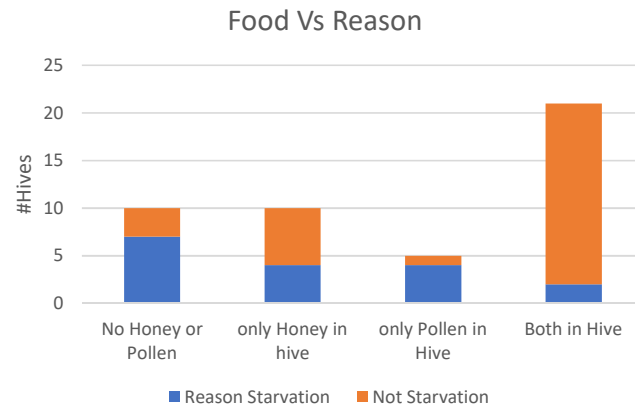
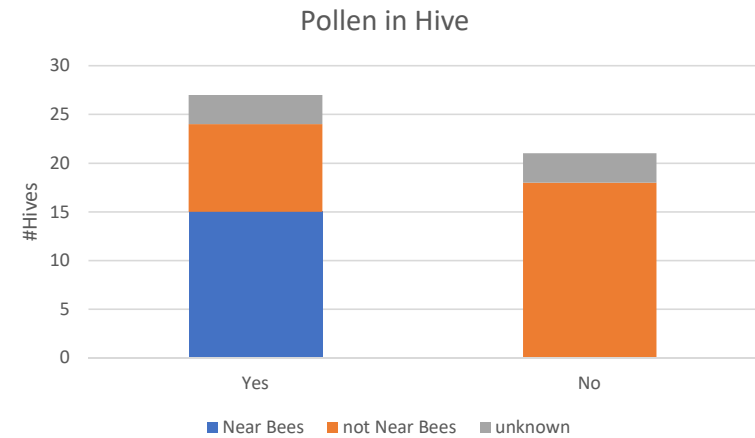
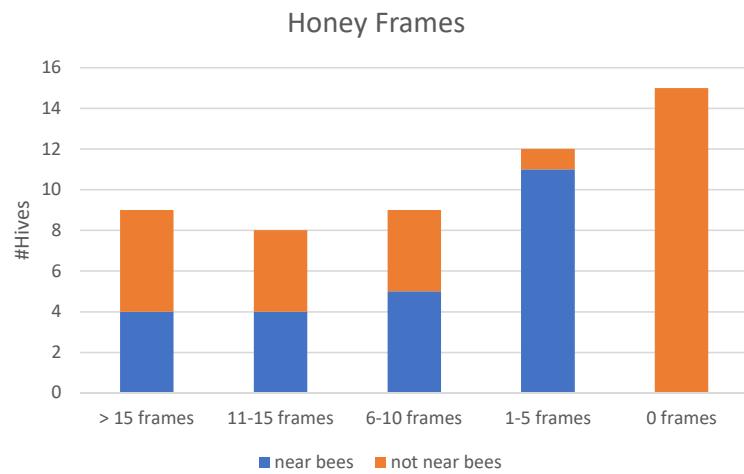
Observations – Brood

Brood

- 36 No Brood Present
- 10 Capped Brood (2 report cappings punctured)
 - Swarming:
 - 6 Did not Swarm
 - 1 Swarm in August
 - 1 Swarm in May
 - 2 Unknown
- 3 additional reported cappings were punctured – but not capped brood

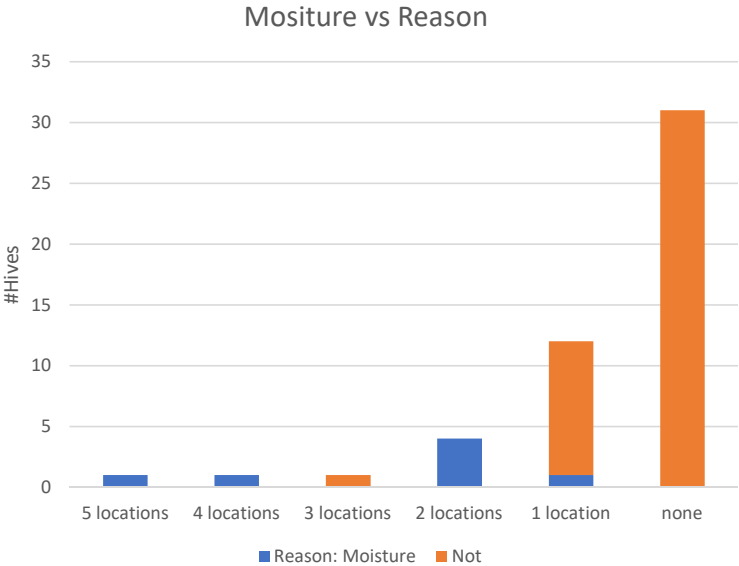
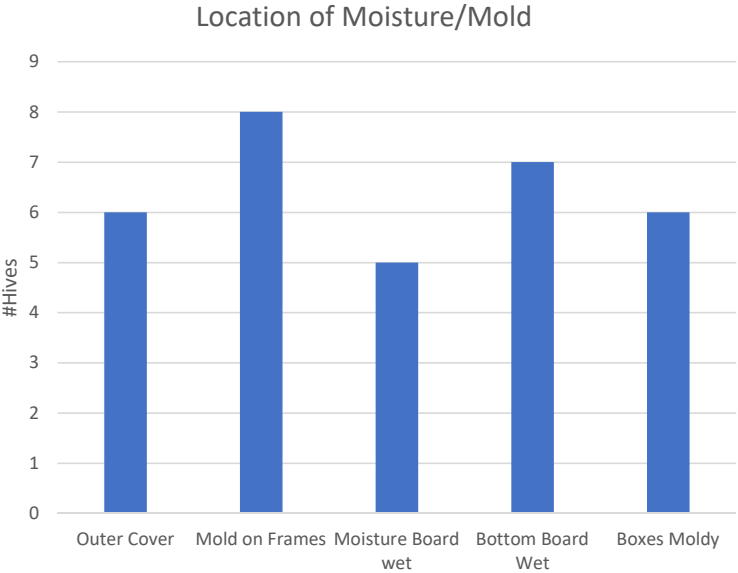


Observations – Honey & Pollen

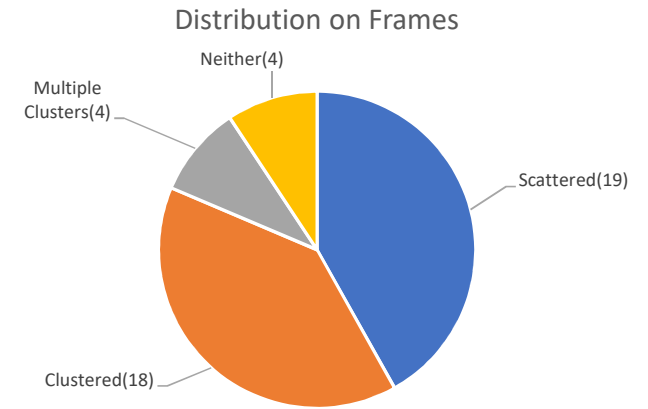
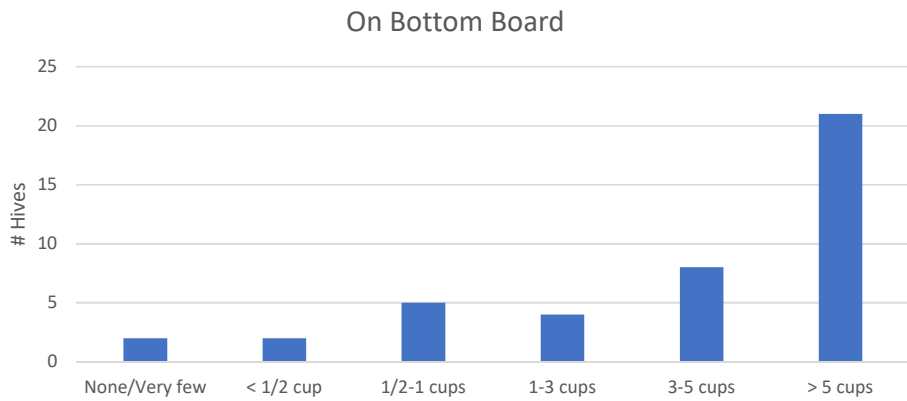
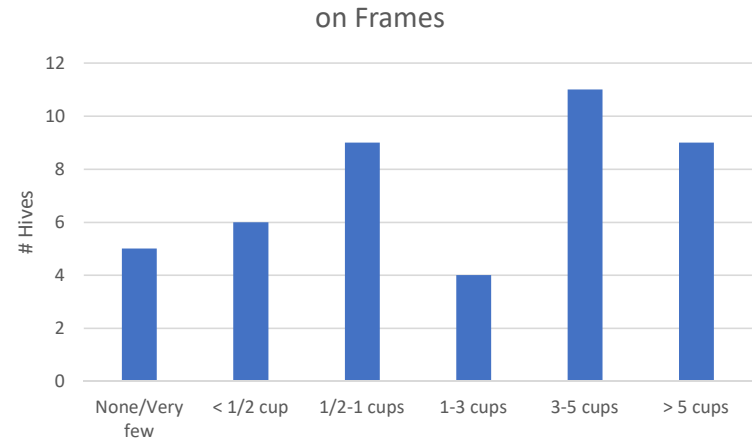
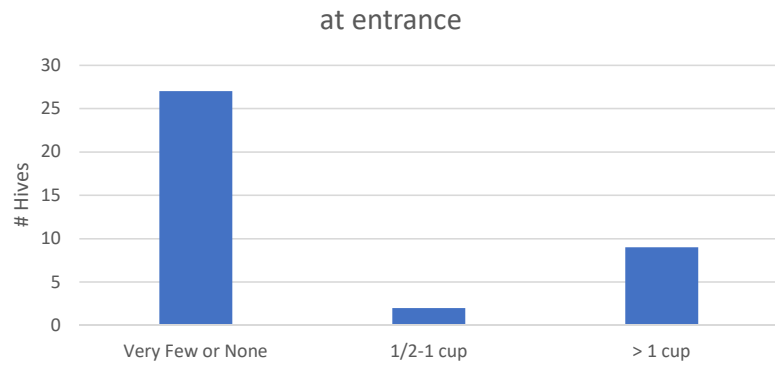


*One didn't list "starvation" but listed "no pollen" as reason For deadout

Moisture in Hive



Number of dead bees



Next Steps

- Update some of the questions on the checklist & survey to make them clearer
- Leave the Deadout Survey open (with the updates from above). Continue to collect data and encourage folks to do their own diagnosis