

## What You Need to Know About Mites<sup>1</sup>

Charlotte Hubbard; [www.hubbardhive.com](http://www.hubbardhive.com)

On FB: Charlotte Hubbard, Beekeeper and ...

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Excellent review of helpful information to diagnose why a hive died overwinter:

<https://beeinformed.org/2016/03/08/why-did-my-honey-bees-die/>

(Commercial) video of varroa mite lifecycle:

<https://www.youtube.com/watch?v=wj-h5VJqaol>

→ My favorite mite monitoring / treatment guide (free PDF):

<http://honeybeehealthcoalition.org/wp-content/uploads/2016/03/HBHC-Guide-Varroa-Interactive-18FEB2016.pdf>

My second favorite: <https://pollinators.msu.edu/resources/beekeepers/managing-the-varroa-mite/>

Great resource for information on Varroa combat, including oxalic acid and powdered sugar dusting:  
[www.scientificbeekeeping.com](http://www.scientificbeekeeping.com) (Randy Oliver)

### **From KEEPING HONEY BEE COLONIES SAFE FROM THE VARROA MITE**

MEGHAN MILBRATH, MICHIGAN STATE UNIVERSITY EXTENSION, APRIL, 2016

	Commercial Name	Application Method	Honey Supers on?	Length of treatment	Temperature
Oxalic Acid	None	Home mix vapor or dribble	Yes	1/week 3 weeks or during broodless	Anytime for vapor, >60 for dribble
Powdered Sugar	None	Dusting	Yes	1/week for 3 weeks or during broodless	No restrictions
Thymol	Api Life VAR	Wafers	No	3 x 7-10 days apart	65-85
Thymol	Api Guard	Gel	No	2 x 2 weeks apart	Above 60
Hop Beta Acids	Hop Guard	Strip	Yes	10 -14 days, up to 3x	None listed
Formic Acid	Mite Away Quick Strips	Wax pad	Yes	1 7 day treatment	55 - 85

Formulations (and opinions/recommendations) can change every year. Make sure that you read labels, and talk to other beekeepers and extension agents to see what they are using with success. For more information on varroa management tools, see the Honey Bee Health Coalition's document, and Randy Oliver's website [www.scientificbeekeeping.com](http://www.scientificbeekeeping.com)

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<sup>1</sup> In my opinion. Others, especially those in beekeeping, may disagree. ☺

Special thanks to Dr. Meghan Milbrath, Commander-in-Chief / Midwest Mite War

Colony Phase	Acceptable Further control not needed	Caution Control may be warranted	Danger Control promptly
Dormant with brood	<1%	1-2%	>2%
Dormant without brood	<1%	<2-3%	>3%
Population Increase	<1%	<2-3%	>3%
Peak Population	<2%	<3-5%	>5%
Population Decrease	<2%	<2-3%	>3%

**Acceptable:** Current mite populations are not an immediate threat.

**Caution:** Mite population is reaching levels that may soon cause damage; non-chemical control might be employed while chemical control may be needed within a month; continue to sample and be prepared to intervene.

**Danger:** Colony loss is likely unless the beekeeper controls Varroa immediately.

#### The Default:

- Monitor to see if you need to do something NOW
- Monitor again in August and September
- “Party line”: if you can’t / won’t monitor:
  - Treat with an organic (“soft”) treatment in spring and fall
  - Commit to learning about mechanical / physical treatments
  - If you still won’t, can I have your bees (to save them and not endanger others)?

### Powdered Sugar Shake Test

*(non-destructive to bees)*

#### Needed:

1. Flat-sided container with ½ cup mark
2. Jar with #8 hardware cloth lid (or comparable)
3. White surface
4. ½ cup bees (300) from a brood frame
5. 2 tablespoons powdered sugar

#### Directions:

1. Open jar, add powdered sugar
2. Stage jar and lid near by
3. Find a brood frame, make sure the queen isn’t on it
4. Collect 300 bees by gently pulling flat container DOWN the backs of bees
5. Pour bees into jar
6. Shake bees AT LEAST one minute
7. Place jar in shade for 3-5 minutes
8. Shake onto white surface until mites stop falling out (most fall out in initial shakes)
9. Count:
  - At or over threshold, done
  - Below threshold:
    1. Add another tablespoon of sugar
    2. Shake for another 30+ seconds
    3. Count
10. Return bees to colony