VARROA TREATMENT RECOMMENDATIONS

At ECWBA meetings we frequently are asked "Tell me how to treat for mites". Here are four recommended courses of action. We have run these four methods through Randy Oliver's Varroa model and all four should control the mites sufficiently to get your hives through the year. This will prevent winter collapse. While the spring (April) treatments are not absolutely necessary they will lower the mite and virus levels during the spring buildup. Using any of these four methods will prevent a mite level buildup from year to year.

Method 1—Vaporized Oxalic Acid only

This should be the lowest cost method (ignoring the cost of the vaporizer) but is also the most labor intensive. Oxalic acid treatments are also known to be kinder to the queen. **NOTE: Applying oxalic acid vapor while honey supers are on is not EPA approved, but widely used elsewhere.**

- -3 oxalic treatments a week apart beginning April 1st
- -Repeat beginning June 1st
- -Repeat beginning August 1st
- -Repeat beginning October 1st

Method 2-Oxalic acid/formic acid mix

Rotating the oxalic and formic treatments hopefully avoids a buildup of tolerance in the mites. Formic acid is hard on queens, especially during extremely hot weather. Try to apply formic acid when the initial four days of the treatment period is cooler. Formic acid treatments are allowed while the honey supers are present.

-2 oxalic treatments a week apart beginning April 1st

-A ½ strength Formic acid treatment about June 1st. A full dose could be used, but increases chances of losing a queen for not a big benefit.

- -A full strength formic acid treatment about August 15th
- -A single oxalic treatment about October 15th

Method 3-Oxalic acid/Apiguard mix

Rotating the oxalic and Apiguard treatments hopefully avoids a buildup of tolerance in the mites. Apiguard is not to be applied while your honey super are on. The thymol in Apiguard will be absorbed by the honey; making it inedible. **NOTE: Applying oxalic acid while honey supers are on is not approved by the EPA, but widely used elsewhere.**

-2 oxalic treatments a week apart beginning April 1st

- -3 oxalic treatments a week apart beginning June 1st
- -3 oxalic treatments a week apart beginning August $\mathbf{1}^{st}$
- -An Apiguard treatment beginning September 15th

Method 4-Formic acid/Apiguard mix

NOTE: Apiguard can not be applied while honey supers are in place. The thymol in Apiguard will contaminate the honey; making it inedible.

- -1/2 formic acid about June 15th
- -Full dose formic acid about August 15th
- -Full dose Apiguard about September 15th