



# Grape Pests – Spider Mites

## What is a Spider Mite (SM)?

The most damaging spider mites in grapes include several species of the webspinning spider mites (*Tetranychus* spp.) such as the Twospotted spider mite (*Tetranychus urticae*). All of these produce webbing that is very noticeable at high densities. Other leaf feeding mites may be present that do not produce much webbing, and these are only considered damaging at much higher densities. Spider mites may be found on vines in early and mid season, but they do not typically reach damaging levels until mid season through harvest. Mites are usually pale green, to pale yellow with dark spots. The color might change somewhat depending on what plant the mite has been feeding on.

Mites deposit eggs singly on the underside of leaves, particularly along the midrib and veins. Mite eggs are usually small, white and spherical in shape, and may be laid in the mite's webbing.



Spider mites are tiny and have 8 legs<sup>1</sup>



Mite damaged leaves turn red or yellow and then dry.<sup>2</sup>

## Why are Mites important?

Spider mites can cause significant cellular damage. More vigorous grape varieties tend to be more tolerant than less vigorous vines to feeding. Webspinning mites tend to be more damaging at lower densities than other mites.

## How to Manage Mites?

**Cultural Management:** Irrigating properly to avoid vine stress is key to controlling spider mites. Managing dust from nearby roads and in between vine rows is also important. Consider planting vegetation between rows in order to reduce the dust transfer in to the air. Broad-spectrum insecticides applied for insects can result in spider mite outbreaks.

**Biological Control:** Spider mites have several natural enemies including: thrips and predatory mites (*Amblyseius*, *Neoseiulus* and *Galendromus* spp.). Consider the ratio of beneficials to pests before spraying insecticide. If you find one beneficial for every ten or less spider mites, you can hold off spraying and continue to monitor for further damage.

### Pesticide Treatment Options:

- Abamectin (Zephyr\*) + Neem Oil at 0.6-1.2L/ha (8-16fl oz/acre) abamectin plus labeled rates of neem oil. These are probably going to be safer for the applicator than Omite and may be cheaper locally since there are often generic products and neem is often made regionally
- Propargite (Omite\*) at 8kg/ha (7.1lb/acre).
- Fenpyroximate (Fujimite\*) at 1L/ha (2pt/acre).

Do not spray more than twice per season with the same pesticide and alternate types of spray. Follow all labeled instructions for safety, including when it is safe to reenter the vineyard after spraying with no protective clothing.

\*Commercial name. The authors make no endorsement towards commercial brands mentioned in this document nor are the absence of other brand names an implication of our disapproval.

**Prepared by Frank Zalom, Emily Symmes, Mark Henderson and Mark Bell, July 2009**

**References:** Statewide IPM Program, Agriculture and Natural Resources, University of California  
<http://www.ipm.ucdavis.edu/index.html>

**Photo Credit:** <sup>1,2</sup> Jack Kelly Clark – UC IPM Program

**For more information visit:** International Programs: <http://ip.ucdavis.edu>

Copyright © UC Regents Davis campus, 2011. All Rights Reserved.