

A very special THANKS to Suterra for donating vine mealybug pheromone traps for today's outreach meeting!

THREE WAYS TO USE YOUR NEW TRAPS (see backside for more specific info):

1. DO I HAVE MEALYBUGS?

Don't think you have vine mealybugs in a vineyard block? Put a trap out and see! With the widespread populations of mealybugs occurring naturally in our region, you would be hard-pressed to find a vineyard without any at all. The highest flight rates occur later in the season, close to harvest.

2. START YOUR NEIGHBORHOOD CONVERSATION.

Use the traps to start a conversation about mealybugs and leafroll virus with your neighbors – bring a trap home for your neighbors so you can all see what is going on and learn together.

3. A DECISION-MAKING TOOL.

Traps can be used as a decision-making tool to know when to begin a pheromone mating disruption program or another treatment. Overwintering mealybugs start coming up from the roots and the base of the trunk in the spring as temperatures become warmer, slowly moving higher up the vine and into the canopy during the growing season. Between May-June are when the males (the only sex that can fly) start flying around in large numbers.

Traps can also help to show you how late in the season you have mealybug mating – you may be surprised to learn that even after harvest the mealybugs are mating, determining your population levels for the next growing season.

Finally, traps can help you monitor mealybug populations over time, from one year to the next, determining how effective your management programs are in different seasonal conditions.



FOLLOW-UP MALE MEALYBUG IDENTIFICATION WORKSHOP

May 1st, 2018 • 9:15 – 10:15am • Burgundy Hall, Lodi, CA

Bring your used trap back on May 1st to Burgundy Hall at the Grape Festival Grounds (413 E Lockeford St, Lodi), where after our regular CD11 LODI PCA Network Breakfast Meeting (7:30-9am), we will have a special workshop to help you identify the VMB males with a microscope from 9:15-10:15am. Please join us for the Network Breakfast Meeting too – all are welcome! **RSVP to lwvc@lodiwine.com or 209.367.4727**

NEIGHBORHOOD COORDINATION: why it matters

It's common sense to control mealybugs, viruses, mildews, invasive weeds, and other pests on the vineyard blocks that you manage. However, what may *not* be as intuitive is why it is SO important to coordinate some of your pest/weed management activities with your neighbors. It is much more EFFECTIVE and CHEAPER if we work together when it comes to rotating mildew chemistries, lowering the amount of vine mealybugs and virus inoculum in our region, making sure not to use chemistries which kill off our region's beneficial insects, eradicating invasive weeds, and coordinating VMB mating disruption.

LODI WINEGRAPE COMMISSION, est. 1991 • RESEARCH  EDUCATION  PROMOTION

April 4th, 2018 Grower Meeting • lodigrowers.com • 209.367.4727 • stephanie@lodiwine.com

Excerpt from UC IPM Pest Management Guidelines: Vine Mealybug for Grapes

last reviewed 7/2015, accessed on 3.29.18 @ ipm.ucanr.edu/PMG/r302301911.html

Pheromone traps can help determine if vine mealybug is present within or near your vineyard. Place pheromone lures in small red delta traps in and around the vineyard by April 1 in the southern San Joaquin Valley, by May in areas further north, and by June in the North and Central Coast region (*in Lodi traps are going out in late March and early April for 2018*):



- Choose two trap sites for each 20-40 planted acres.
- Put one trap in the center of the block and the other on the edge near a staging area. These traps can attract vine mealybug males from as far away as 1/4 mile.
- Attach traps to the trellis wires so that they are in the cluster area/fruiting zone.
- Label the trap with the block name and row number of its location and the dates it remains in the vineyard.
- Check traps for the presence of male vine mealybug every 2 weeks through November.
- Follow the manufacturer's recommendations for storing and replacing pheromone lures.
- Record observations on a monitoring form.

It is essential to use a dissecting microscope to identify the male mealybug. (Male vine mealybugs are smaller than adult thrips and are very difficult to see even with a hand lens.) The sex pheromone is specific to the vine mealybug, but the traps may also contain other male mealybugs depending on the site. If there are questions as to the identification of the mealybug species, take samples to a farm advisor or county agricultural commissioner or refer to the Male Vine Mealybug Identification Sheet (included in this packet).

The number of males found in a trap depends upon its proximity to the infestation and to the time of year. In the North Coast, new infestations have been located near traps that caught very low numbers in June (5 to 10 males per trap per week) and high numbers in fall (more than 50 males per trap per week). In the San Joaquin Valley, an infested vineyard will have between 20 to 300 or more males per trap per week. In either region, low numbers of male vine mealybugs found in a trap may mean that the infestation is located in an adjacent block or in a more distant vineyard. If males are found, increase the number of traps in the vineyard, and locate the infestation by examining lower leaves for honeydew.

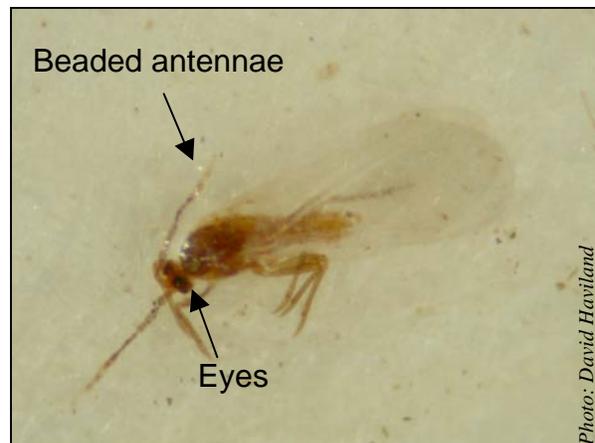
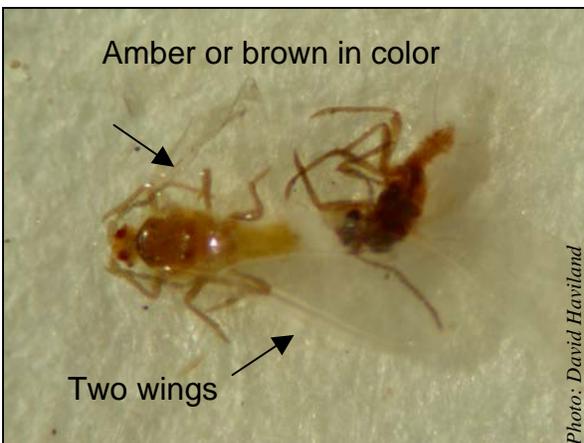
How long can a trap stay up before I need to replace it?

Cleaner traps are easier to read. Traps may get covered with dust and insects, making them lose their stickiness. The age of the lure is more important than the age of the trap. The lure you were given today by Suterra is called a septa lure and they officially last 4 weeks in the field. Traps are usually checked every 2 weeks. So, if you need to replace a trap while the lure is still viable, remove the lure from the old trap WITH TWEEZERS OR A STICK and place it in the new trap.



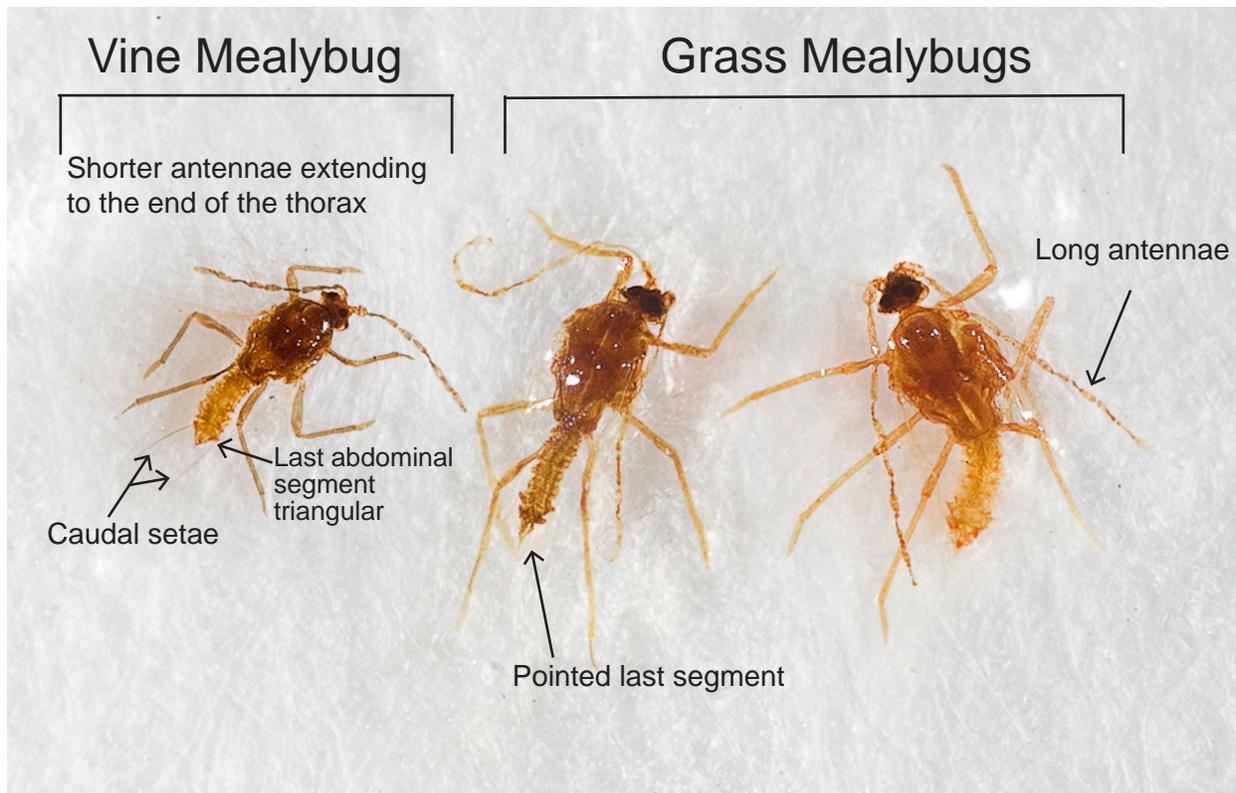
Male Vine Mealybug Identification Sheet

These photographs are of male vine mealybug (*Planococcus ficus*) as they appear on a sticky trap. Use of a stereo microscope with 30X magnification will greatly aid in identification. The male vine mealybug is small (approximately 0.7 mm long) and amber brown in color. It has one pair of wings, but sometimes they are not visible because they are embedded in the stickum. The antennae are beaded, the trunk (thorax) is wider than the abdomen and there are four caudal setae (tail filaments), which usually appear as only two.



Male Vine Mealybug (*Planococcus ficus*) and Grass Mealybugs (*Phenacoccus* spp.)

Vine Mealybug Male	Grass Mealybug Male
Smaller in size (approx. 0.7 mm)	Larger in size (approx. 1.0 mm)
Antennae as long as head and thorax	Antennae as long as the body length
Shorter legs	Longer legs
A pair of caudal setae	Caudal setae not visible
Last abdominal segment triangular in shape	Last abdominal segment pointed





Other Small Insects Caught on Traps

These are examples of other small insects which may be caught on the stickum of vine mealybug pheromone traps and may appear similar to vine mealybug males.

