



September 2002

Vine Mealybug New Vineyard Pest is Here

A serious new pest, vine mealybug (*Planococcus ficus*), has been found in a Sacramento County vineyard. It has spread throughout one block and into an adjacent block. This pest is a serious rival to the glassy-winged sharpshooter in its potential damage and control measures needed to keep it in check. A very small infestation was also found in a Sonoma County vineyard. These infestations are the first that have occurred north of Fresno. The pest was found in one small vineyard block in Santa Barbara and San Luis Obispo Counties in 2000 and 2001 respectively. After aggressive treatments, no further increase has been seen in those Central Coast counties.

The vine mealybug (VMB) was first found in a small vineyard in the Coachella Valley in 1994 and within three years, it had spread throughout the entire grape growing region. In 1998 it was found in the southern San Joaquin Valley, where all infestations were associated with Coachella Valley vineyards, which shows that it is easily spread with tractors, equipment, and even clothing.

Whereas grape mealybug (*Pseudococcus maritimus*) is an occasional pest here that rarely reaches high populations, VMB can smother clusters and is found on all parts of the vine, including roots. VMB has 5 to 7 generations per year, compared to half that for grape mealybug. VMB also has more eggs per sac and a tremendous amount of honeydew, resembling melted candle wax. Unlike grape mealybug, all life stages of the VMB can be present year-round on a vine. During winter months, eggs, crawlers, nymphs, and adults

are found under bark, within developing buds, and on roots.

Vine mealybug can be distinguished from grape mealybug by observing the V-shaped tail (“caudal filaments”) with a hand lens. The tail of the adult female vine mealybug is much shorter than that of the grape mealybug. Citrus mealybug also has a short tail, but it is rarely found here. Here’s what to look for:

- White bodies of the female adults and nymphs – often clumped in groups.
- White masses of cottony material on trunks and cordons, especially under bark.
- Honeydew excreted by the insects on the leaves and fruit and the black sooty mold that grows on the honeydew.
- Ants on the trunk and cordons.

For positive identification, a sample should be taken to the CDFA Plant Pest Diagnostic Center (3294 Meadowview Rd., Sacramento) or brought to our office or to the Agricultural Commissioner’s office.

There are several methods of control, which are being refined by UC researchers. In-season treatments are timed to mainly kill crawlers, which don’t start moving around the plant until about early June. Treatments that look promising include a late May application of Admire through the drip system, an early summer application of Applaud or dimethoate, and a fall or pre-budbreak spray of Lorsban. Proper timing is critical on each of these. Some parasitic wasps also look promising, although they tend to be active relatively late in the season. Wasp releases will be made as they become available, and they will likely become established in

the region. It is unlikely that parasitic wasps alone will sufficiently control VMB populations. More specific information on control methods will be made available soon.

A trapping program has been established with Kent Daane (UC Kearney Ag Center), Paul Verdegaal (UCCE San Joaquin County), the Lodi-Woodbridge Winegrape Commission, and UCCE Sacramento County. Red sticky traps with pheromone lures have been placed in vineyards

throughout Sacramento County and are being monitored weekly.

A new UC publication, *Mealybugs in California Vineyards*, is now available (Publication no. 21612, 16 pp.). The cost is \$7 plus tax. It covers 6 mealybug species and has over 30 color photos. Call our office for availability of this publication. Or call UC ANR Communication Services, (800) 994-8849 or log on at <http://anrcatalog.ucdavis.edu>.