# Quarantine Pest Alert: Vine mealybug Planococcus ficus



## **INTRODUCTION**

Vine mealybug (VMB), *Planococcus ficus*, was found in Oregon for the first time during the summer of 2021. OSU Extension detected two populations by pheromone trapping for males in vineyards in Jackson County. Expanded trapping during 2022 collected over 24,000 VMB males. A control and monitoring program was initiated. For 2023, treatments were initiated using both mating disruption and insecticide treatments. As a result, expanded trapping did not catch any VMB in Jackson County. A statewide survey found VMB at several sites in Douglas county and one site in Linn County. For 2024, statewide survey, expanded trapping around detections, and treatments are planned.

VMB is a European species that was first found in CA in the early 1990s. Within about 15 years, VMB had spread throughout grape growing areas. It is one of the most important grape pests in CA and other areas of the world where grapes are grown.

In addition to grape vines, VMB has a broad host range of more than 24 plant families that includes important hosts such as apple, beet, potato, walnut and willow.

## **PEST STATUS**

VMB poses a threat to grape and tree fruit production. VMB is a serious pest of grapevines, particularly as an excellent vector of grapevine leafroll viruses. Grapes used for wine are a high value crop in Oregon, valued at over \$208 million dollars in 2018.

As they feed, VMBs produce sticky honeydew allowing sooty molds to develop on leaves and hindering photosynthesis. Molds can develop on grape clusters and cause them to be unsuitable for consumption.



Vine mealybug female. Note the wax tails (filaments) are not more than ½ the width of the body.

From California Dept. of Agriculture, https://oda.fyi/jqb

## **PREVENTION**

The best way to keep VMB out of your crop is to use caution when entering your vineyard. Make sure workers are aware of VMB and that they clean equipment and check clothing after visiting potentially infested areas. Infested equipment is the primary means of mealybug spread (Haviland et al. 2006). Make sure that grafting material is pest-free and that stock acquired from California has been treated as required by Oregon's Grape Pests and Diseases Quarantine (ORS 603-052-0051). Because of its wide host range, VMB may be moved on many kinds of plants, such as nursery stock.

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### **HOW DOES IT MOVE?**

VMB can actively move between plants, and nymphs may be passively dispersed by the wind. The wax on the nymphs and adults is sticky and can carry immature and adult VMB to new areas on clothing or equipment. Vineyard workers could facilitate VMB's spread. Movement of live plants and plant cuttings can also transport VMB.

## **QUARANTINE**

A quarantine is in place. Oregon's Grape Pests and Diseases Quarantine (ORS 603-052-0051) places properties infested with this pest under quarantine. The quarantine has several components including restrictions on the movement of potentially infested plant material from infested sites, as well as setting sanitation requirements for personnel and equipment that visit infested sites.

### **WHAT CAN YOU DO?**

Notify ODA immediately, if you believe you have found vine mealybug. Early detection is vital to preventing this significant pest's spread.

Make a report in the ODA mealybug database at https://oda.fyi/mealybug

**Email:** plant-entomologists@oda.oregon.gov

Phone: (503)986-4636

#### MORE INFORMATION

Oregon Department of Agriculture Insect Pest Prevention & Management Program 26755 SW 95th Ave, Suite 101 Wilsonville, OR 97070 503.986.4636 | Oregon.gov/ODA



Vine mealybug found under bark. From the UC Riverside Center for Invasive Species Research.

https://cisr.ucr.edu/invasive-species/vine-mealybug

### **IDENTIFICATION**

VMB females are typically 2 to 4mm in length (1/16<sup>th</sup> - 3/16<sup>th</sup> inch). Unlike other mealybug species in Oregon vineyards, VMB do not have long, wax tails. VMB is best detected using pheromone lured traps that attract males.

### REFERENCES

Oregon Grape Quarantine, ORS 603-052-0051: https://www.oregon.gov/oda/programs/PlantHea lth/Pages/Grape-Quarantine.aspx

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Walton, V., A.J. Dreves, P. Skinkis, C. Kaiser, M. Buchanan, R. Hilton, B.R. Martin, S. Castagnoli and S. Renquist. 2009. Grapevine Leafroll Virus and Mealybug Prevention and Management in Oregon Vineyards. OSU Extension pub EM 8990. 4pp.