



Lodi-Woodbridge Winegrape Commission

RESEARCH/IPM Program Update

Crush District #11, Local Commission

June 1995

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RESEARCH SUMMARY:

Distribution of Phylloxera in the Lodi-Woodbridge Crush District and the Threat to Rootstocks

(This is a summary of commission-funded research by Dr. Jeffrey Granett, U.C. Davis. Grower cooperators included Lodi Farming, John Kautz Farms, Thompson Vineyards, Joe Cotta III, Vino Farms, Ernest Schmierer, Hubert Mettler, and Vineyard Properties.)

In 1992, the investigators selected twelve suspected phylloxera sites and collected samples. Ten samples were own-rooted, one sample was Dog Ridge and one was AXR #1. Investigators have concluded grape phylloxera is widespread in Crush District #11.

Seven phylloxera samples were compared to the standard biotypes A and B from the Napa Valley rootstocks Teleki 5C, Dog Ridge, Salt Creek (Ramsey), and Freedom. Testing in the laboratory, phylloxera samples (eggs) were placed on the four different rootstocks to see if phylloxera would survive.

Teleki 5C: No survival of any phylloxera on this rootstock.

Dog Ridge: Only 2-3% of eggs became adults, and total survival was 18% or less. Investigators believe none of these populations are capable of inflicting losses in otherwise healthy vineyards.

Salt Creek (Ramsey): Survival of colonies was the highest on this rootstock (up to 35%) but very few reached adulthood.

Freedom: Showed strong resistance to all phylloxera samples.

SUMMARY:

1. Phylloxera is widespread in the Lodi-Woodbridge district and is causing damage in some vineyards, especially to own-rooted vines.
2. Laboratory bioassays showed Dog Ridge, Salt Creek, Freedom and Harmony to be resistant to all colonies tested. Teleki 5C appears to have the highest resistance to all colonies tested.
3. During this study, biotype B was found in two vineyards in the Lodi-Woodbridge area for the first time.

Prune Tree Resources

For anyone interested in planting some prune trees next year, the following resources are available:

Green Tree Nursery, La Grange	(800) 350-4414
Agri-Sun Nursery, Selma	(209) 896-7444

Due to limited supplies, be sure to place your orders for the 1996 season now!

NEW LWWC IPM CONSULTANTS

Scientific Methods, Inc., an independent agricultural consulting firm, has been retained by the Lodi-Woodbridge Winegrape Commission to continue to develop and implement the integrated pest management (IPM) program in Crush District #11. Scientific Methods has been developing and implementing IPM systems for 15 years.

Successful IPM programs have been developed in California, Washington, and Mexico on various cropping systems. Drs. Clifford Ohmart, Clifford Kitiyama, and Barry Wilk work out of the Durham, California office and will handle the winegrape commission's IPM responsibilities. These three Scientific Methods staff members received their PhD's from UC Berkeley with emphasis in IPM, ecology and biological control.

Initial efforts are being made to become acquainted with as many district growers as possible. This is important because alternative programs have greater likelihood of success when implemented on an area-wide basis. A great deal of research has been undertaken in the Lodi area in the last four years. This work is being molded into a farming system that is ecologically sound and yet maintains quality production.

All growers, large and small, are encouraged to call the commission office in order to arrange a meeting with one of these resource people. Your input and cooperation is essential in the development of a successful area-wide IPM program. Additionally, information concerning monitoring, data interpretation and control alternatives specific to your vineyard can be discussed.

GROWER PROFILE

Growers:	Anthony and David Fuso
Years in Winegrape Industry:	16 Years
Acres in District:	200 Acres

IPM Strategies:

When it comes to Integrated Pest Management, Anthony and David Fuso are willing to try just about everything - at least once. Some practices have worked in their vineyards and others have failed, but these third generation growers are still attempting to find what is most efficient in IPM for their operation.

This is the third season that Anthony and David have planted cover crops. Eighty acres are rotated between winter legumes and buckwheat in the spring. Fuso's disc 75% of their winter cover in the spring with every fourth row left with a 24" strip of cover in the middle. The buckwheat, planted in May, is disced in July or August, leaving the vineyard completely out of cover only for harvest season. The Fuso's state that the cover crops provide a food source for overwintering beneficials, reduce soil compaction, loosen the soil, and the legumes contribute an additional nitrogen source.

According to Anthony, cover crops have improved soil tilth, making it more open for irrigation. "We can also tolerate a much higher insect pressure than 5 years ago, when we clean-farmed everything."

The Fuso's experimented with yellow sticky tape, or Hopperstopper, for 2 years in a row. One of those years it was still necessary to spray. Better results overall were achieved by stapling the tape to vines rather than the wrapping method. The tape remained intact longer and maintained a larger surface area. However, the Fuso's concluded that the tape was too time and labor-intensive, caught beneficials in addition to pests, and was too expensive to be an economical means of leafhopper control.

Other IPM methods the Fuso's are employing in their grapes are leaf pulling and lacewing releases. The leaves are pulled not only for rot control and improved quality, but also with proper timing can control a new hatch of leafhoppers. The Fuso's enjoy the aid of neighboring owls for rodent control. A new idea they want to pursue in the future is soft pesticides which are insect-specific, require low application rates, have a longer-lasting effect and are easier on the environment.

Since the introduction of IPM in the district, Anthony has visibly noticed more quail and other wildlife due in part to the expanding use of cover crops and refuges in the Lodi-Woodbridge region. Fuso would also like to see a resurgence of bats which he thinks should be reestablished in this area.

Why have the Fuso's maintained such a concentrated effort to try different IPM ideas? Anthony states that it is not the cheapest way to go and can definitely require more labor. But he also looks at IPM as "an educational opportunity to stay one step ahead and be progressive with farming changes in the future, especially with the Big Green initiative. If conventional agricultural tools are pulled, we want to stay profitable and not have to make these changes all at once."

NEW RESOURCES

(Available in the LWWC IPM resource room.)



1. "Grower's Weed Identification Handbook", University of California.
2. "Wildlife Pest Control Around Gardens and Homes", University of California.
3. "Compendium of Grape Diseases", Pearson and Goheen, 1988.



UC DAVIS SHORT COURSES

Saturday, July 15, 1995: Home Vineyard Series: Soils, Ground Covers & IPM

Monday, August 14: Winegrape Variety and Rootstock Identification

Tuesday, August 15: Vineyard Water Status: Concepts & Consequences

Wednesday, August 16: Vineyard Canopy Assessment Workshop

For class description and enrollment information, call 1-800-752-0881.

UPCOMING MEETINGS

June 6, 1995: California Energy Commission Weed Trial Demonstration
9-11 a.m. - Kautz Farms

** Any questions/comments regarding this newsletter should be directed to Tammy at the Commission office at (209) 367-4727.**

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