



2025 - ISSUE 2

bulletin



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Vineyard Health Boosted with \$2.2 Million Research Investment

To build up the California winegrape industry's protections against pests and diseases, the Pierce's Disease and Glassy-Winged Sharpshooter Board is investing \$2.2 million in new research funding. The funds will support 11 research projects over the next three years.



2025 RESEARCH FUNDING

\$2.2M
for 11 new projects

\$726,394
for 7 continuing projects

\$60.1M
invested in research since 2001

 **CALIFORNIA
PD/GWSS BOARD**
Partnership for Winegrape Pest Solutions

The Board continued funding seven previously approved multi-year projects for \$726,394 for fiscal year 2025-26. Thirteen additional projects are continuing, with no-cost extensions.

"We carefully and strategically invest grower funds with top-notch researchers focused on pest and disease challenges facing California winegrape growers," said Randy Heinzen, Board chair. "While not every issue affects

every region, our Board includes growers from across the state, so we consider a broad range of threats—from PD to red blotch and grapevine leafroll-associated viruses to spotted lanternfly."

The Board's research funding focuses on preventing the spread of pests and diseases and delivering practical, sustainable solutions. Projects address disease management strategies, genetic and biotechnological solutions, vector and disease transmission, virus detection and management and industry preparedness. View the full list of [new research projects on the next page](#).

The Board invites researchers to submit proposals yearly. This year, 29 proposals were evaluated by independent scientific review panels, the Board's research coordinator and the Research Screening Committee before being discussed by the full Board. The Board's funding recommendations were approved by Secretary of Agriculture Karen Ross.

Funded by the industry, for the industry, the research program is supported by the PD/GWSS assessment and directed by the grower-led Board. Since 2001, the Board has funded 311 research grants, investing \$44.1 million in PD and GWSS research and \$15.9 million in research on other pests and diseases. Learn more at bit.ly/3w27mtc.

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List of New Research Projects

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2024 PD/GWSS Board Research Projects at a Glance

On the Research Front

- Early and Autonomous Field-Detection of Virus Infections in White and Black Grape Vines
- Virus-Based Delivery of Interfering RNAs Targeting Grapevine Leafroll-Associated Virus(es)

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New Study Shows Pierce's Disease Investment Saves Winegrape Growers \$56 Million Annually

Growers Urged to Vote on PD/GWSS Referendum by June 12

New Research Funding in 2025

Topic	Title	Project Leader	Total Funding*
Pierce's Disease	Optimizing biopesticide strategies for Pierce's disease management in recovered vineyards	Eskalen, A. University of California, Davis	\$188,073
	Can spotted lanternfly transmit Pierce's disease? An in-depth investigation into potential acquisition of <i>Xylella fastidiosa</i> by spotted lanternfly	Urban, J. The Pennsylvania State University	\$225,634
Insect	Development of multimodal lures for early detection of spotted lanternflies	Bhamla, S. Georgia Institute of Technology	\$388,215
	Risk maps and apps for the spread of spotted lanternfly (<i>Lycorma delicatula</i>) in California	Helmus, M. Temple University	\$56,608
	Genetic control of glassy-winged sharpshooter	Walling, L., University of California, Riverside	\$158,103
	Identification of grapevine phenolic and vineyard-associated biocontrol agent fungal compounds for management of <i>Xylella fastidiosa</i> by reducing sharpshooter spread	Wallis, C. U.S. Department of Agriculture Agricultural Research Service	\$160,000
Virus	Propagation and testing of vital material for indoor foundation grapevine collection	Al Rwahnih, M. University of California, Davis	\$ 115,837
	Evaluating the impact of dsRNA-induced silencing of four C1-protein interactors on GRBV activity in infected grapevine	Deluc, L., Oregon State University	\$89,924
	Virus-based delivery of interfering RNAs targeting grapevine leafroll-associated virus(es) and grapevine red blotch virus	Kuo, Y-W., University of California, Davis	\$437,326
Insect & Virus	Transmission ecology of grapevine red blotch virus genetic clades	Almeida, R., University of California, Berkeley	\$165,914
	Epidemiology of grapevine leafroll-associated virus 3 and RNA interference against the virus and its major mealybug vectors	Fuchs, M., Cornell University	\$222,986

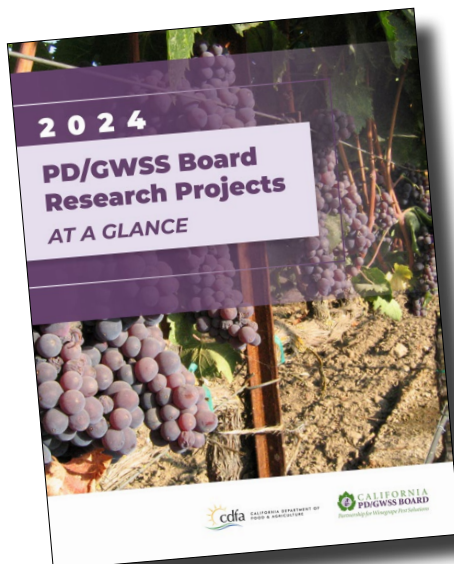
*grant durations will be one to three years

on the RESEARCH FRONT



CALIFORNIA PD/GWSS BOARD

Partnership for Winegrape Pest Solutions



2024 Research Projects at a Glance

The PD/GWSS Board is pleased to release the “2024 PD/GWSS Board Research Projects at a Glance,” showcasing pivotal work from the past year to combat winegrape pest and disease challenges. The report is available online at bit.ly/PD-Board-research-projects.

The research overseen by the Board is critical to accelerating knowledge to fight nine pests and diseases, improving pest and disease management practices and driving progress and innovation with over 298 research grants over the past 25 years. Current research projects focus on PD management strategies, genetic and biotechnological solutions, vector and disease transmission, virus detection and management and industry preparedness.

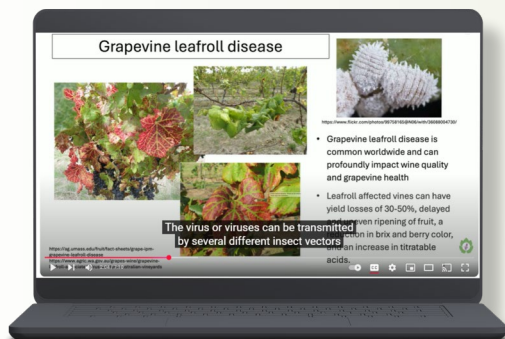
Early and Autonomous Field-Detection of Virus Infections in White and Black Grape Vines

Project leaders: Luca Brillante, California State University, Fresno and Marc Fuchs, Cornell AgriTech

This project uses advanced imaging technology and AI to create early, accurate, and easy-to-understand maps of infected vines, helping growers manage disease outbreaks more effectively. By analyzing light reflected from grapevines, researchers identified spectral differences in infected plants before visible symptoms appeared, even in white grape varieties. High-resolution vineyard maps were validated against PCR tests and field assessments, with ongoing research refining machine learning models and exploring varietal differences in disease response. Learn more at bit.ly/4ijxAMF.



Managing disease outbreaks with advanced imaging technology and artificial intelligence.



Watch the video report at youtu.be/An1irqq0o5Y

Virus-Based Delivery of Interfering RNAs Targeting Grapevine Leafroll-Associated Virus(es)

Project leader: Yen-Wen Kuo, University of California, Davis

The research team is developing a new approach to combat grapevine leafroll disease (GLD) using a virus-based method to silence harmful genes. Early tests show this technique can protect vines from infection without causing damage, and a new root treatment method makes large-scale application more efficient. Ongoing research aims to refine this tool for better disease control, with potential benefits for managing GLD and its insect vectors. Watch the video report at youtu.be/An1irqq0o5Y.

New Study Shows Pierce's Disease Investment Saves Winegrape Growers \$56 Million Annually

According to a new economic study, the California Department of Food and Agriculture's Pierce's disease (PD) and glassy-winged sharpshooter (GWSS) prevention, control and research efforts save California winegrape growers \$56 million annually by reducing losses from the fatal grapevine disease. Without the efforts led by the Pierce's Disease Control Program, growers' losses would more than double from \$48 million to \$104 million.

The study conducted by the UC Davis Robert Mondavi Institute Center for Wine Economics found that if GWSS spread unchecked, PD outbreaks could cost winegrape growers an additional \$56 million a year in lost production and vine replacement. Read the study online at cdfa.ca.gov/pdcp/pdcost.html.

"This study highlights the serious threat PD and GWSS pose to our industry and reinforces the importance of grower-funded research," said Randy Heinzen, chair of the PD/GWSS Board. "The public-private partnership led by the Pierce's Disease Control Program is vital, allowing assessment funds to drive research that improves pest and disease management and to develop practical, sustainable solutions for the long-term viability of our industry."

The unique funding partnership the winegrape industry forged between growers, the state and federal government and industry fuels the essential research and control operations that have significantly blunted the most severe impacts of PD and GWSS. Even with these efforts, PD still costs an estimated \$110 million annually

in California, including \$45 million for control, prevention and research, \$48 million in lost winegrape production and vine replacement and \$17 million in lost table and raisin grape production and vine replacement. Without these critical programs, the industry's losses in production and vine replacement would be even higher, putting greater financial strain on growers and threatening the long-term stability of California's vineyards.

"For a quarter of a century, growers, government and industry partners have invested in research and treatments to keep PD and GWSS at bay. This study shows the return on that investment, and it's pretty impressive," said Joseph Damiano, statewide coordinator for the Pierce's Disease Control Program.

With industry and government support keeping PD and GWSS in check, grower-funded research continues to drive advancements in pest and disease management while supporting field trials for promising solutions. According to the study's authors, the economic burden of PD and GWSS could decrease as this research yields practical, vineyard-ready innovations.

Growers Urged to Vote on PD/GWSS Referendum by June 12

California winegrape growers are now voting on extending the Pierce's Disease and Glassy-Winged Sharpshooter (PD/GWSS) Assessment for another five years through 2031. Return ballots must be postmarked by June 12. Results are expected late June. The last referendum passed with an overwhelming 78% voter approval.

"The assessment has been instrumental in protecting California's vineyards from serious pests and diseases by funding groundbreaking research to improve control and management practices and develop long-term solutions," said Randy Heinzen, chair of the PD/GWSS Board. "Grower participation in this vote is vital to continuing these efforts and ensuring the industry remains proactive in tackling evolving threats."

Every winegrape producer who paid the 2024 assessment should have received a ballot in the mail, with growers operating multiple entities receiving separate ballots for each. For the referendum to pass, at least 40% of ballots must be returned, and either (a) at least 65% of voters, representing a majority of assessments paid, must vote "yes," or (b) a majority of voters, representing at least 65% of assessments paid, must vote "yes."

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