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Investing Wisely in Research That Works for Growers

Each year, the Pierce’s Disease and Glassy-winged Sharpshooter Board supports research focused on protecting vineyards and managing pest and disease risk. With the industry facing ongoing financial pressure, the Board continues to take a careful, targeted approach to research investments to maximize available resources.



2026 RESEARCH FUNDING

\$1.99M
for 9 new projects

\$866K
for 7 continuing projects

\$62.1M
invested in research since 2001

CALIFORNIA PD/GWSS BOARD
Partnership for Winegrape Pest Solutions

This year, the Board is investing \$1.99 million in new research funding for nine research projects over the next two years. The Board is also continuing support for seven previously approved multi-year projects, with \$866,277 allocated for fiscal year 2026/27.

These investments support work from early-stage studies to applied research, helping fill knowledge gaps and move solutions closer to use in the field.

Projects address key challenges, including Pierce’s disease, grapevine viruses and the insects that spread them.

"We reviewed many strong proposals this year, but we had to be selective. We focused on funding a diverse set of projects that address the range of challenges growers are facing and will deliver the greatest value in the vineyard," said Trey Irwin, Board chair.

Each year, the Board issues a Request for Proposals and evaluates submissions through a multi-level review process involving outside experts, scientists and industry representatives. Final funding decisions are approved by Secretary of Agriculture Karen Ross, with funding for selected projects beginning in July.

The projects funded this year reflect both immediate needs and long-term priorities, helping ensure limited funds are used where they can have the greatest impact. View the list of [new research projects on the next page](#).

Built to deliver value over time, the research program is supported by the PD/GWSS assessment and directed by a grower-led board. Since 2001, the Board has funded 320 research grants, investing \$44.8 million in PD and GWSS research and \$17.3 million in research on other pests and diseases. Learn more at bit.ly/PDBoardResearch.

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List of New Research Projects

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2025 PD/GWSS Board Research Projects at a Glance

Watch Now: New Research Video Updates

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Grapevine Red Blotch Virus: Understanding Vectors and Early-Season Risk

New Research Funding in 2026

Topic	Title	Project Leader	Total Funding*
Pierce's Disease	Augmenting Pierce's disease winter recovery using pre-winter treatments	Almeida, R., <i>UC Berkeley</i>	\$277,418
	Development of Pierce's disease-resistant grapevines using PdR1 allelic diversity and genome editing	Cantu, D., <i>UC Davis</i>	\$109,524
	Management of the federal permits for multi-investigator field-testing of transgenic grapevine rootstocks in California	Dandekar, A., <i>UC Davis</i>	\$45,606
Insect	Current status and impact of glassy-winged sharpshooter (<i>Homalodisca vitripennis</i>) biological control in California	Daugherty, M., <i>UC Riverside</i>	\$114,978
	Grape germplasm evaluation to identify potential host plant resistance for vine mealybug	Riaz, S., <i>USDA Agricultural Research Service</i>	\$299,166
Virus	Development and validation of a multi-virus HiPlex PCR assay for grapevine viruses regulated in California	Al Rwahnih, M., <i>UC Davis</i>	\$147,297
Insect & Virus	From vector to vine: detection method development, vector competence, and latency of grapevine red blotch virus	Cieniewicz, E., <i>Clemson University</i>	\$480,713
	Latency and incubation periods of Grapevine Leafroll-associated Virus 3 following inoculation with the vine mealybug and potential of RNA interference for management	Fuchs, M., <i>Cornell University</i>	\$265,664
	Movement behaviors of the vine mealybug and spread of Grapevine Leafroll-associated Virus 3	Fuchs, M., <i>Cornell University</i>	\$251,203

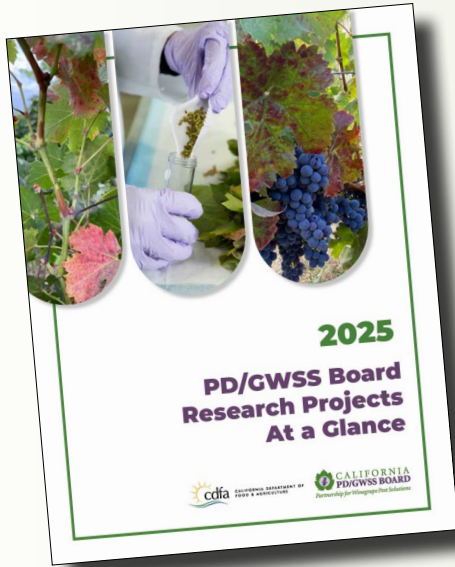
*grant durations will be one to two years

on the RESEARCH FRONT



CALIFORNIA PD/GWSS BOARD

Partnership for Winegrape Pest Solutions



2025 Research Projects at a Glance Report Now Available

The [2025 PD/GWSS Board Research Projects at a Glance](#) report is now available, offering a snapshot of the latest research working to protect California vineyards from pests and diseases.

The report includes brief, easy-to-read summaries of current research projects, giving growers a quick way to understand what's being studied, what's been learned so far and why it matters.

Projects focus on Pierce's disease, grapevine viruses and the insects that spread them with an emphasis on practical tools and strategies growers can use. Current work advances early detection methods, improves diagnostic accuracy and strengthens vector management approaches, while also exploring genetic and biological solutions to reduce disease spread.

Explore the report: bit.ly/PD-Board-Research-25

Watch Now: New Research Video Update

See how PD/GWSS Board-funded research is moving from concept to application. In these short videos, researchers share how they're developing new tools to improve grapevine resilience, from genome editing to disease resistance.

Building new tools for grapevine improvement:

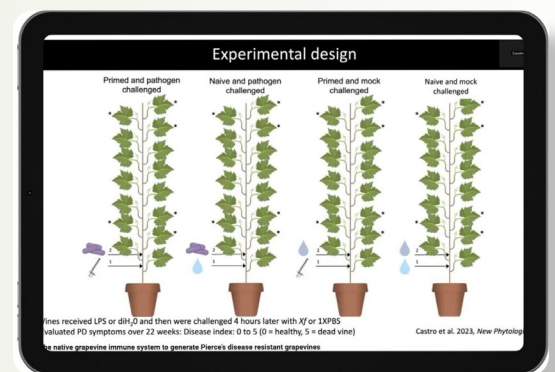
Development of a protoplasts-based platform to knock-in agriculture relevant genes into grapevines (Debernardi): bit.ly/4efmg5J

Advancing DNA-free genome editing:

Developing an efficient DNA-free, non-transgenic genome editing methodology in grapevine (Deluc): bit.ly/4tD1kKe

Tapping into the grapevine's natural defenses:

Using the native grapevine immune system to generate Pierce's disease resistant grapevines (Roper): bit.ly/3QvrXMy



Watch the video reports at bit.ly/4tnu0YI

Grapevine Red Blotch Virus: Understanding Vectors and Early-Season Risk

Grapevine red blotch virus continues to challenge California growers because it can spread before symptoms are visible. Red blotch affects how vines grow and develop, reducing fruit quality, delaying ripening and making vineyard decisions more difficult. Infected vines may have lower sugar levels, changes in acidity and less color, even when symptoms are not easy to see.

Early in the growing season, red blotch is especially hard to detect. Vines infected in spring may not show symptoms until much later in the season or even in future years. This delay makes it important to understand early-season risks.

WHAT RESEARCHERS ARE LEARNING ABOUT INSECTS THAT SPREAD RED BLOTCH

PD/GWSS Board-funded research led by Dr. Frank Zalom of UC Davis is helping explain how the virus spreads in vineyards. While the three-cornered alfalfa hopper is the only confirmed insect vector, researchers are studying other treehopper species that may also play a role.

One species of interest is *Tortistilus albidosparsus*. Researchers have found that this insect can pick up the virus while feeding on infected vines and leave traces behind at feeding sites. Field studies are helping show when these insects are active and how they move between plants and grapevines.

Monitoring in Napa Valley and the Sierra Foothills shows that adult treehoppers often appear from late May through early summer, though timing can vary. These insects can also lay eggs in grape canes and develop on other plants before moving into vineyards.

Knowing when these insects are active and where they come from helps researchers understand when vineyards may be at risk.

WHAT EARLY SEASON MEANS FOR RISK

In spring, visual scouting is not a reliable way to detect red blotch. A vineyard may look healthy, but still have infected vines. The surrounding landscape also plays a role. Treehoppers and other possible vectors may develop on plants outside the vineyard before moving into grape blocks. These movements are not always easy to see, but they can affect where infections begin.

Early-season decisions matter. While they may not stop all infections right away, they can affect how disease pressure builds over time.

KEY TAKEAWAYS FOR GROWERS

- Do not rely on early-season symptoms to assess red blotch risk
- Watch insect activity and surrounding vegetation, not just vineyard rows
- Use early observations to guide monitoring later in the season
- Plan for long-term management and consistent monitoring

CURRENT PD/GWSS BOARD RESEARCH

The PD/GWSS Board also supports several projects that improve understanding of red blotch. Learn more about the following projects in the *Annual Research Project Reports*, online at bit.ly/PD-Board-research-projects.

- **Transmission Ecology of Grapevine Red Blotch Virus Genetic Clades**, led by Dr. Rodrigo Almeida and Dr. Monica Cooper, is studying how the three-cornered alfalfa hopper spreads different types of the virus.
- **Improved Decision-Making for Grapevine Leafroll and Red Blotch Diseases Using Rapid Identification Tools**, led by Dr. Monica Cooper, developed field testing and image-based tools to help identify infected vines more quickly.
- **Early and Autonomous Field Detection of Virus Infections in Grapevines**, led by Dr. Luca Brillante and Dr. Marc Fuchs, uses imaging and artificial intelligence to detect infections before symptoms appear.

Together, these projects are helping researchers better understand how red blotch spreads and how growers can identify infections earlier and make more informed decisions.