Our biggest mistake now continued research is going to be the only way to someday find a means of putting the threat of Pierce’s disease behind us.”

Mike Sangiaco, Sonoma County Winegrape grower, Carneros Region, California.

How It Is Spent

Over the last 10 years, millions of dollars have been invested in protecting California’s grape-growing areas from PD and GWSS. During this time, government funds have primarily been used to prevent the spread of GWSS to new areas or to manage GWSS in areas it has already reached, while industry funds collected via the PD/GWSS Board Assessment have been used to support research seeking long-term solutions to the PD threat. This sharing of responsibility has created an effective partnership that has successfully met the many challenges presented by PD and GWSS in California.

FUNDING

Investing in Your FUTURE

RESEARCH HIGHLIGHTS At Work for You

Breeding PD-Resistant Vinifera: While controlling GWSS is critical, it is almost certain to one day return to F1. One of the most exciting Board-funded research programs has identified a PD-resistant clone with many desirable traits which may be key to the development of future PD-resistant grape varieties.

Looking Inside Plants for a Cure: Researchers have discovered compounds which appear to be effective at stopping or greatly reducing the symptoms of PD in grapevines. Additional studies are in need to identify treatments or harvesting the vines prior to these compounds developing, resulting in preventing or reducing PD’s threat. More research is needed, and skills that are acquired to begin within a few years.

Understanding the Disease: Lessons learned during the 1999 Temecula outbreak caused by the glassy-winged sharpshooter (GWSS), caused severe damage to grapevines since phylloxera. California was facing its biggest threat to its grape industries are helping to keep GWSS and PD from spreading to other parts of the state until there is a permanent solution.

PIERCE’S DISEASE

A Decade of PROGRESS

In the late ’90s, a new pest, the glassy-winged sharpshooter (GWSS), caused severe damage to grapevines in California, spreading the fatal Pierce’s disease (PD) through vineyards at a rapid pace. California was facing its biggest threat to its grape industries are helping to keep GWSS and PD from spreading to other parts of the state until there is a permanent solution.

Research helped Temecula recover from our devastating losses. The lessons learned and the partnerships formed here with other industries are helping to keep GWSS and PD from spreading to other parts of the state until there is a permanent solution*.

*Research supported by USDA-CSREES/SEA"
Moving Plants Without Posing the Pest

**Managing the Pest — Controlling PD**

CDA's Pierce's Disease Control Program (PDCP) is working to contain the statewide impact of PD and GWSS. The strategy is to stop or slow the spread of GWSS while solutions to PD are developed. This strategy relies upon five elements: Contain the Spread, Statewide Survey and Detection, Identify, Slow, Monitor and work to minimize the statewide impact of PD and GWSS.

**A Decade of Progress**

The Pierce’s Disease/vGWS Symposium released a uniform name for Pierce’s Disease in 2001. The PDCP operated a rapid response survey that quickly detected and contained the infestation in central Solano County. By 2003, a successful management strategy using Gonatocerus morrilli parasitic wasps was implemented in a large vineyard in the north of Solano County. Successful use of biological control agents on native mesquite trees in various counties contributed to the statewide effort to keep the insect vector and disease in check while contributing to the state’s multi-billion dollar wine industry. The University of California reports that since 1994, the University of California has received $22.3 million to cover the cost of research and other program activities by the University of California. We have been successful so far thanks to the constant vigilance to ensure GWSS isn’t moved into new areas by shipping, treatment, certification, and surprise survey. A Decade of Progress

**Sharing Results Stimulates New Ideas**

**A Unified Approach**

**Moving Plants Without Posing the Pest**

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“Our biggest mistake now would be to think this disease is no longer a problem. Ultimately, continued research is going to be the only way to someday find a means of putting the threat of Pierce’s disease behind us.”

NIEE SANGIOCO
Nitroglycos, Carneros Region, Sonoma County

RESEARCH HIGHLIGHTS
At Work for You

Breeding PD-Resistant Varietals: While eradication is critical, the ultimate goal is to produce a PD-resistant grapevine. One of the most promising board-funded research programs has identified a PD-resistant vine that will soon be approved, which should enable the development of commercial PD-resistant grape varieties.

Looking Inside Plants for a Cure: Researchers have discovered compounds which appear to be effective at stopping or greatly reducing the symptoms of PD in grapevines. Additional studies are needed to develop methods of applying or having the vine produce these compounds themselves, resulting in promoting an effective PD treatment. Full testing, refinement, and field trials are expected to begin within a few years.

Understanding the Disease: Lesions clustering the 1999 Temecula outbreak occurred for the first time in 20 years. By identifying the type of spread-events from research previously conducted with more effective management tools to reduce future losses.

Identifying Plant Hosts: The plants and trees surrounding vineyards could actually serve as hosts for PD or GWSS. Thanks to research, growers now have a better idea of the common landscape hosts for PD or GWSS. Thanks to research, growers now have a better idea of the common landscape

FUNDING
Where It Comes From: How It Is Spent

STATE DOLLARS
FEDERAL DOLLARS
OTHER DOLLARS
STATE OPERATIONS
PROGRAM
FEDERAL OPERATIONS
PROGRAM
OTHER OPERATIONS
PROGRAM
PROTECTION
FUTURE OPERATIONS
PROTECTION
BREEDING
FUTURE BREEDING
PROTECTION
RESEARCH
FUTURE RESEARCH
PROTECTION
EDUCATION
FUTURE EDUCATION
PROTECTION
COMMUNITY OUTREACH
FUTURE COMMUNITY OUTREACH
PROTECTION
INVESTING IN YOUR FUTURE
Pierce’s Disease (PD) through vineyards at a rapid pace. In the late ’90s, a new pest, the glassy-winged sharpshooter (GWSS), caused severe damage to grapevines in California, spreading the fatal Pierce’s disease (PD) through vineyards at a rapid pace. California was facing its biggest threat to grapevines since phylloxera.

Today, 10 years later, the future is looking brighter. A unique partnership of state, federal, and local agriculture departments, industry, and research institutions is not only controlling the pest, but through research is also building a foundation of new information and advances helping to close in on solutions to Pierce’s disease.