New Officers for the PD/GWSS Board

At its January 22, 2018 meeting, the PD/GWSS Board elected new officers to serve during 2018. The new officers are Ryan Metzler (Chair) of Fresno, Keith Horn (Vice Chair) of St. Helena, and Domenic Rossini (Treasurer) of Modesto. Outgoing Chair Pam Bond of Oakville, who was elected chair of the PD/GWSS Board at the January 2017 meeting, succeeded former Chair Nat DiBiase of Fresno.

Newly-elected Board Chair Metzler, formerly the Board’s Vice Chair, is a fourth generation farmer raised in the Fresno area. A graduate of Fresno State, he formerly served as Vice President of Capital Agricultural Property Services, the property management division of Prudential Ag Investments, where he managed many farm operations in the west. He now is the owner and operator of Fruta Del Sol, a certified organic producer, and farms 200 acres of winegrapes and tree fruit in the Fresno/Sanger area. Metzler is also a lieutenant commander in the U.S. Navy Reserve with 27 years of service.

“I’m excited to play a part in the PD/GWSS Program which is helping to protect California’s winegrape industry,” Metzler said. “It’s really humbling to be on the Board with so many leaders in the industry and to help manage the public and private coordination of resources to help fight this pest and disease. With continued research and close management, this Board will continue to find solutions to this challenge.”

Foundation Plant Services Stepping Up Testing After Red Blotch Find

In December 2017, the Director of Foundation Plant Services (FPS), Deborah Golino, announced that grapevine red blotch disease, caused by grapevine red blotch virus (GRBV), had been found in the Russell Ranch Vineyard (RRV) at UC Davis.

The infected vines (five out of 4,132 vines tested) have been removed and destroyed. “We are carefully monitoring the vineyard blocks in which GRBV has been found, and additional testing has been implemented to ensure that any occurrence of disease is immediately detected and contained,” said Golino.

Red blotch disease is widespread in the United States. It was first reported in Napa Valley vineyards in 2008 and the virus, GRBV, was identified in 2012. The virus is transmitted by grafting infected propagative material onto uninfected vines, and one vector, the three-cornered alfalfa hopper (Spissistilus festinus), has been confirmed to transmit GRBV.

RRV has been tested for GRBV since 2013, and this is the first time infected vines were found. “Clearly these infections came from outside our vineyards,” said Golino. “And while FPS has always been committed to maintaining our foundation plant materials at the highest standards possible, additional precautions are being implemented to prevent the spread of this disease,” she added.

In addition to the testing already being done, FPS has completed or is working on the following:

- Additional spray treatments specifically targeting any possible vectors have been applied, and a more comprehensive program for control of vectors is being developed.
- All grapevines in proximity to RRV have been tested, and infected vines have been removed and destroyed.

Continued on page 2
Greenhouse Evaluation of Grapevine Microbial Endophytes and Fungal Natural Products for Control of PD

Principal Investigator: Philippe Rolshausen, Dept. of Botany & Plant Sciences, UC Riverside, Calif.

During this project researchers discovered microbial communities living inside grapevine canes by culturing and DNA-based approaches that measured the impact of these resident communities on Pierce's disease (PD) infection. Researchers identified two bacteria, Pseudomonas fluorescens and Achrymobacter sylvestrides, as negative correlates of Xyella fastidiosa (Xf). Hence, those bacteria were more abundant in vines that displayed a healthy phenotype in vineyards under high PD pressure. In vitro testing showed hexasays selected several grapevine-inhabiting fungi inhibitory to Xf. Among those Coleobolus sp. inhibited Xf growth in vitro through the production of radicin, and Cryptococcus sp. reduced the development of PD symptoms in plants. Researchers are now testing in the greenhouse, high throughput cost-effective applications of PD-suppressive organisms and radicin formulations to vines. This work will further advance a strategy to develop tools for PD management.

Insecticide Resistance in the Glassy-winged Sharpshooter: Using Historical Use Patterns to Inform Future Management Strategies

Principal Investigator: Thomas M. Perring, Dept. of Entomology, UC Riverside, Calif.

Insecticides are key to the management of glassy-winged sharpshooters (GWSS) and Pierce's disease in California. Research in 2015 demonstrated resistance to some insecticides in Kern County, with increasing resistance as the season progressed. Fortunately, there was no increased resistance in 2016, but levels were still higher than in 2000-2001. Further work in 2017 focused on imidacloprid, the most frequently used insecticide in the region. Biosurveys on GWSS collected from citrus near insecticide-treated groves and from citrus away from treated groves found increased resistance in both field types as the season progressed, but GWSS collected near treated orchards were more resistant. These data suggest that local use of imidacloprid has impacted resistance levels in Kern County. This research helps explain the GWSS resurgence in Kern County. In addition, pairing resistance levels at specific sites with annual grape records could provide information useful to growers selecting chemicals for their pest management programs.

Assessing Effects of Seasonality on the Epidemiology of PD in the Southern San Joaquin Valley


A 2016 field study identified the time of year that glassy-winged sharpshooters (GWSS) are most likely to acquire and transmit Xyella fastidiosa (Xf). Citrus orchards and vineyards were sampled every three weeks beginning in April 2016. In 2016, 14 percent of GWSS collected from citrus tested positive for Xf and 19 percent of GWSS collected from vineyards tested positive for Xf. The timing of the increase in Xf-positive GWSS in vineyards occurred contemporaneously with an increase in detection of Xf in grapevines chronically infected with Xf. The percentage of chronically infected vines testing positive for Xf was low in June and increased as the summer progressed, peaking in September. Likewise, Xf-positive sharpshooters were first detected in vineyards in July, with the percentage of sharpshooters positive for Xf peaking in September. In 2017, 11 percent of GWSS collected from citrus sites were positive for Xf, with no GWSS observed at vineyard sites. Sampling is ongoing and will end in the fall of 2018.