



To: Board of Supervisors
From: Birgitta E. Corsello, County Administrator
Date: December 10, 2021
Subject: Significant Issues Update

Ag Department response to invasive pest infestation in Vacaville

BACKGROUND

On October 1, 2021, the Agriculture Department identified a new glassy-winged sharpshooter (GWSS) infestation in the Browns Valley area of Vacaville during a routine early detection pest survey. On November 15, following additional surveys to delimit the extent of the infestation, the California Department of Food and Agriculture issued a Proclamation of Emergency officially declaring Browns Valley an infested area. The proclamation further outlines imperative actions and legal authorities necessary to eradicate the infestation.

GWSS is an invasive leafhopper insect that aggressively vectors the bacterium *Xylella fastidiosa* which causes Pierce's disease in grapevines. There is no known cure for Pierce's disease and once infected, grapevines typically die within one to five years. GWSS and Pierce's disease therefore pose a severe threat to California's multi-billion-dollar grape industry.

Pierce's disease has been present in California for over 100 years, but its potential impact on vineyards increased significantly with the introduction of GWSS in the early 1990s. GWSS are native to the southeast U.S. and northeastern Mexico, but over the past 30 years have spread throughout most of southern California and into the southern San Joaquin Valley.

Outlier GWSS infestations occur occasionally in northern California including a 2004 infestation in Vacaville that was declared successfully eradicated in 2007. Pierce's disease likewise has been reported in most northern California grape growing areas, including Solano, but has been mitigated by GWSS prevention efforts. *Xylella fastidiosa* also causes almond leaf scorch leading to decline and reduced productivity in almond orchards. Although not yet reported in Solano, almond leaf scorch presents a compounding threat to local agriculture and heightens the need to eradicate GWSS in Vacaville.

GWSS feed and reproduce on a broad range of common landscaping plants and trees. Surveys in Vacaville most often find GWSS on crepe myrtle, citrus and star jasmine. Nursery stock shipments originating from southern California are treated with insecticides prior to departure and inspected at destination in northern California for GWSS. The Agriculture Department has inspected over 3,000 nursery stock shipments from infested southern California counties in the past five years. It is likely that the new infestation entered Vacaville on nursery stock or was inadvertently introduced by someone relocating plants into Browns Valley from an infested area of the state.

INFESTATION STATUS

Since early October, Solano County Agricultural Biologists have captured 51 adult GWSS, 14 juvenile GWSS and 57 egg masses across 53 residential properties in Browns Valley. During October and

November, Biologists surveyed over 1,100 properties and made over 1,000 trap checks to delimit the extent of the infestation. Due to this enormous workload and potential for GWSS to impact regional vineyards, Napa, Yolo and Contra Costa Counties all graciously sent staff to assist Solano Biologists in this effort.

Based on trapping and survey findings, CDFAs emergency proclamation declares the infested area to encompass a one-mile radius around the Browns Valley residential area. To date, the infestation is confined to this area and no commercial agricultural operations are affected.

ERADICATION EFFORTS

Initial eradication treatments on infested properties, and parcels adjacent to infested properties, started in late October under professional services contract with licensed pest control business Neighborly Pest Management. Over 150 properties are targeted for a first round of foliar insecticide applications to GWSS host vegetation. Treatments are occurring on a property owner consent basis and all insecticide applications are being monitored by County Agricultural Biologists. CDFA and the California Department of Pesticide Regulation are also monitoring insecticide treatments to ensure effectiveness and environmental safety.

A second and broader round of treatments is being planned for January-April 2022. While the first treatments occurring in October-December are aimed at an initial reduction of the GWSS population, the winter-spring 2022 treatments will focus on longer-term control through systemic applications to soil under host vegetation.

Adjunct to insecticides, CDFA also rears and releases species of small stingless wasps that parasitize GWSS eggs. This type of pest management, using one living organism to control another, is termed biocontrol. Wasp biocontrol releases in Browns Valley during GWSS egg laying times will also help to further reduce GWSS populations.

Unlike past Mediterranean fruit fly and European grapevine moth infestations in the county where pheromone mating disruption and sterile insect releases were used to great success, fewer pest management tools are available to effectively control and eradicate GWSS. GWSS do not use pheromone response for mating or feeding which limits the effectiveness of early detection traps and reduces control methods to insecticides and biocontrol agents.

A minimum level of detection trapping will continue through the winter months when GWSS are less mobile. Additional traps will be placed in spring as temperatures warm and monitored through fall 2022 to gauge eradication progress and inform further management actions. It is anticipated that follow up insecticide treatments will need to occur during summer and fall 2022 and into 2023 with a persistent aim of steadily reducing the population to a point of complete eradication. CDFA will only declare the infestation eradicated and rescind the emergency proclamation when no further GWSS are detected for a minimum one-year period.

PUBLIC OUTREACH

The Agriculture Department notified area residents of the infestation through door-to-door visits, phone calls and mailers. The city of Vacaville also shared information with the community on their social media platforms. The Agriculture Department and CDFA will host a virtual public meeting in January to discuss the infestation and eradication efforts with residents. Because the infestation is in a well-populated residential area and GWSS host plants are plentiful in the affected neighborhoods, it is essential that the community is well-informed of the issue and necessary measures to control and eventually eradicate the infestation.

FUNDING

The Agriculture Department is currently in the second year of a two-year cooperative funding agreement with CDFA to perform Pierce's disease prevention work including GWSS detection trapping and nursery shipment inspections. The current annual funding allocation of \$159,600 is insufficient to support an eradication program.

To address this shortfall, CDFA has agreed to contribute \$250,000 from the State's pest emergency fund and the Pierce's Disease Control Board approved up to \$150,000 to fund the Agriculture Department's emergency response work during the current fiscal year. In early 2022, the Agriculture Department is expecting to present a CDFA contract amendment in the amount of \$400,000 for Board approval. Project funding for FY2022-23 will again be sought from these same sources next year.

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