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Salinas Station

Last Modified:

The Salinas Station coordinates and conducts scientific support activities for light brown apple moth (LBAM) and European grapevine moth (EGVM). The station develops control and detection methods for these pests and provides technical analysis of program data to assist our stakeholders to maintain export markets of affected commodities. The station also supports development of mass-rearing strategies for biocontrol agents of the Asian citrus psyllid.

Recent Accomplishments

- A small scale rearing system for EGVM capable of producing up to 10,000 larvae per week was developed. This colony was used for testing of pesticides for development of improved tools for the EGVM area-wide control program by our cooperators. The efficacy of new and existing materials were tested along with application rates. This information was delivered to growers through University of California Cooperative Extension.
- The University of California (UC), and ARS are cooperating on the development of fumigation schedules for table grapes using methyl bromide and other treatment alternatives. A custom environmental control room for fumigation work for EGVM on table grapes inside of a UC-Davis quarantine lab was designed and installed to support this work.

- Completed several projects in cooperation with the University of California on mortality of EGVM during wine making procedures. This work showed there is no risk of spreading EGVM by transport of red wine must and allowed this commodity to be deregulated. This work has also shown that the regulatory treatment during the press process of 2 bars of pressure is effective. Our work also has identified that the grape crush process can allow significant numbers of larvae and pupae to survive if grape loads come from infested fields. This highlights the need for increased sanitation at wineries that may be processing infested grapes.
- Supported the EGVM control program by conducting studies of phenology and surveys of alternate host plants in Napa County.
- Organized a working group with the strawberry industry, Monterey and Santa Cruz counties, LBAM Cooperative Program personnel and the University of California for pest risk analysis of LBAM and to develop a systems approach for conventional and organic strawberries to allow for streamlined regulatory procedures for interstate and foreign export of strawberries from quarantined areas.
- Worked with University of California cooperator to test existing and new materials as regulatory treatments of LBAM on nursery stock. The cooperator was able to show which materials were most effective to control different LBAM life stages and the duration of effective control on field grown material. Several treatments had extended control out to three weeks after treatment.
- Conducted a study on the use of irradiation as a phytosanitary treatment for LBAM using an X-ray source.
- Analyzed the horticultural mineral oils available in California and provided a recommendation to the LBAM regulatory control program to allow the regulated industry a greater number of options for the use of horticultural mineral oils to control LBAM on nursery stock. This recommendation was adopted by CDFA and growers now have more choices in their selection of approved oil treatments.
- Analyzed LBAM program data to estimate the spread rate of LBAM in California and prepared a written recommendation regarding a proposal to reduce the size of the quarantine area for new LBAM detections.
- Analyzed LBAM trapping records and the literature to provide a technical recommendation for the size of an effective quarantine area around a new LBAM find.

- Tested a new four-component pheromone lure under California conditions and determined the use of the new lure would significantly improve trap catch over the current two-component lure.
- Initiated new work to mass rear *Tamarixia radiata* in California. This parasitoid is a biological control of the Asian citrus psyllid which vectors citrus greening.

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