

**California Department of Food and Agriculture (CDFA)  
Minutes**

of the Meeting/Video Conferencing  
of the Nursery Advisory Board (NAB)  
Held on Thursday, September 9, 2021  
1220 N Street  
Sacramento, CA 95814

**NURSERY ADVISORY BOARD (NAB)**

**Voting Members**

**Members Present:** David Cox, Michael Frantz, Bruce Jensen, Janet Silva Kister, Daniel Waterhouse

**Members Absent:** Don Dillon, Dustin Hooper, Jay Jensen, Thomas Lucas

**Non-Voting Members**

**Present:** Ha Dang, Lorence Oki, Chris Zanobini

**Absent:** Karen Suslow

**OTHER ATTENDEES\***

Kyle Beucke, Fred Ceballos, Andrew Cline, Dani Diele, Katie Filippini, Nate Foust-Meyer, Mark Gill, Dante Gonzales, Dana Groot, Jan Hall, Lisa Herbert, Juan Koponen, Joshua Kress, Eric Larsen, Katie Little, Don Massie, Mark McLaughlin, Erin Otto, Greg Parra, Michael Paule, David Pegos, Kerstin Pohlman, Nawal Sharma, Beth Stone-Smith, Matt Travis, Kristina Weber

\*As self-reported in the Zoom application

**CALL TO ORDER AND ROLL CALL**

Board Chair Janet Silva Kister called the meeting to order at 8:00 a.m. and conducted roll call. A quorum was present for the Board.

**OPENING REMARKS AND HOUSEKEEPING**

Kister reviewed general meeting guidelines, including compliance with the Bagley-Keene Open Meeting Act.

**UPDATE ON SPOTTED LANTERNFLY (SLF) AND THE THREAT IT POSES TO CALIFORNIA**

United States Department of Agriculture (USDA) and CDFA staff provided presentations

regarding spotted lanternfly (SLF), *Lycorma delicatula*.

### **Spotted Lanternfly Program FY 21 Operational Update**

Erin Otto (National Policy Manager for SLF), Matt Travis (Multi-State Coordinator for SLF), and Greg Parra (Staff Scientist) presented on federal operations related to SLF (attached), including:

- Background
- Current SLF population areas
- FY 21 Program Goals
- Program Activities in FY 20, including detection and survey, treatments for infested areas, research regarding treatments, and biological controls
- Future proposed work on SLF, including canine detection, treatment alternatives, and additional research related to green industry

### **Spotted Lanternfly: Keeping this Pest out of California**

Mark McLoughlin, David Pegos, Kyle Beucke, and Colleen Murphy presented on state activities and information related to SLF (attached), including:

- Present infestation in 9 states
- 6 states with interior quarantines (no federal quarantine)
- Summary of SLF finds in air cargo in California since 2019
- Potential distribution of SLF in the US
- Impacts of SLF to grapes (i.e. killing vines, peak feeding near/at harvest)
- Tools in the toolbox (i.e. insecticide sprays, *Ailanthus* removal)
- Steps taken in CA to reduce potential for introduction

Questions and comments from the Board included: pest range and mobility of SLF, potential for establishment of SLF in the San Joaquin Valley, the potential for nursery stock as a pathway for SLF, other commercial hosts, outreach efforts regarding SLF, and how industry can proactively work with CDFA and USDA to prevent disruptions to commerce.

There were no public comments related to this agenda item.

### **PUBLIC COMMENTS**

None.

### **ADJOURNMENT**

The meeting was adjourned at 9:30 a.m.

Respectfully submitted by:

Michael Paule, Associate Governmental Program Analyst  
Nursery Services Program  
California Department of Food and Agriculture



United States Department of Agriculture

# Spotted Lanternfly Program FY 21 Operational Update

USDA APHIS PPQ  
September 2021



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# Spotted Lanternfly Cross Functional Working Group

- Erin Otto, National Policy Manager, PM
- Matt Travis, Multi-State Coordinator for SLF, FO
- Greg Parra, Staff Scientist, S&T



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# Agenda

- Background
- Current population areas
- FY 21 Program Goals
- Program activities in FY 20

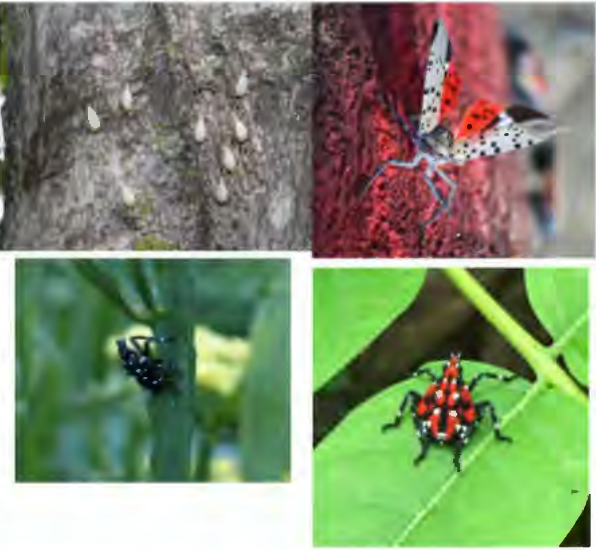


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## Background

- Spotted Lanternfly (SLF), *Lycorma delicatula*, was first detected in Berks County, Pennsylvania in 2014
- Population area has increased through natural and human-assisted spread to ten additional states in the Mid-Atlantic and Northeastern US
- Highly preferred host is Tree of Heaven, *Ailanthus altissima*



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## Background

- Pest adversely affects grapes, hops, fruit trees, ornamental trees
- Potential threat to forest ecosystems
- Affected vineyards report increased labor and pesticide costs associated with SLF control

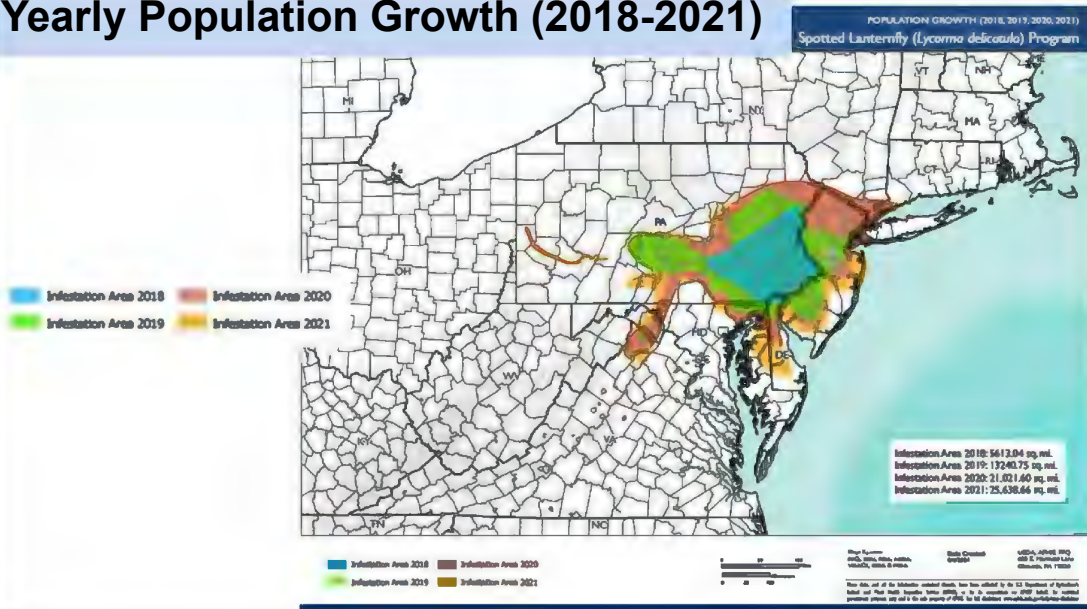


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## Yearly Population Growth (2018-2021)



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## **FY 21 SLF Program Goals**

- Focus primary control measures based on data that identifies key areas and established populations
- Focus primary control measures on high-risk transportation and commodity pathways to minimize long-distance dispersal
- Rapidly respond to SLF satellite populations as they are discovered

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## **FY 21 SLF Program Goals (cont.)**

- Promote the development, harmonization and implementation of best management practices (BMPs) for industries, businesses, and growers
- Promote the harmonization of state SLF regulatory and data collection activities across the SLF program
- Maximize SLF education, management recommendations, and citizen reporting by supporting robust outreach strategy

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## Program Focus: High-Risk Pathways

- High-Risk Pathways include:
  - High-traffic rail and transit pathways
  - High-volume shipping operations and cooperators
  - High-Risk industries
  - High-value agricultural commodities



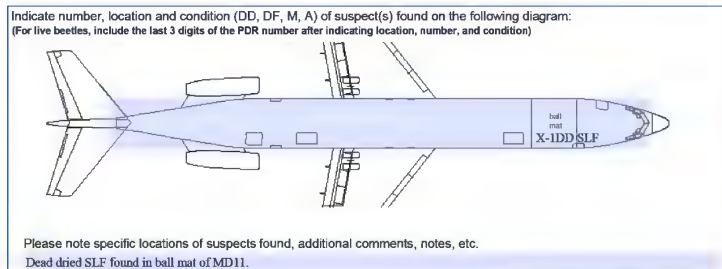
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## Transportation Pathways – Air Cargo

- Japanese Beetle Program support
  - Developed new SLF data fields in Survey 123 app used by JB inspectors
  - Inspecting for both JB and SLF at arrival and departure airports
- SLF Program is working with S&T and U.S. Air Force to develop treatments for departure flights to the Westcoast



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## Detection and Survey Activities

- Primary Surveillance Tactics for SLF
  - Visual Survey
  - Circle Traps
  - Sentinel Trees
  - Public Reporting
- Employ multiple surveillance tactics
- Support the development of new survey tools



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## Treatments – Trap Tree

Direct bark or foliar application of herbicide or systemic insecticide to *Ailanthus altissima*

### Prioritized Properties:

- Airports
- Marine Port Environs
- Commercial/Industrial Sites
- Transportation Corridors
- Rail Properties



## Treatments – Broadcast Spray

- Applying contact insecticides (bifenthrin)
- Manual pump backpack sprayers or spray rigs using hydraulic guns
- Focused on rail properties and high priority areas



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## SLF Research Activities

### Areas of Strategic Research for SLF





Survey and Trapping

Treatments

Biology and Rearing

Pathway and Predictive Modeling

Biological Control

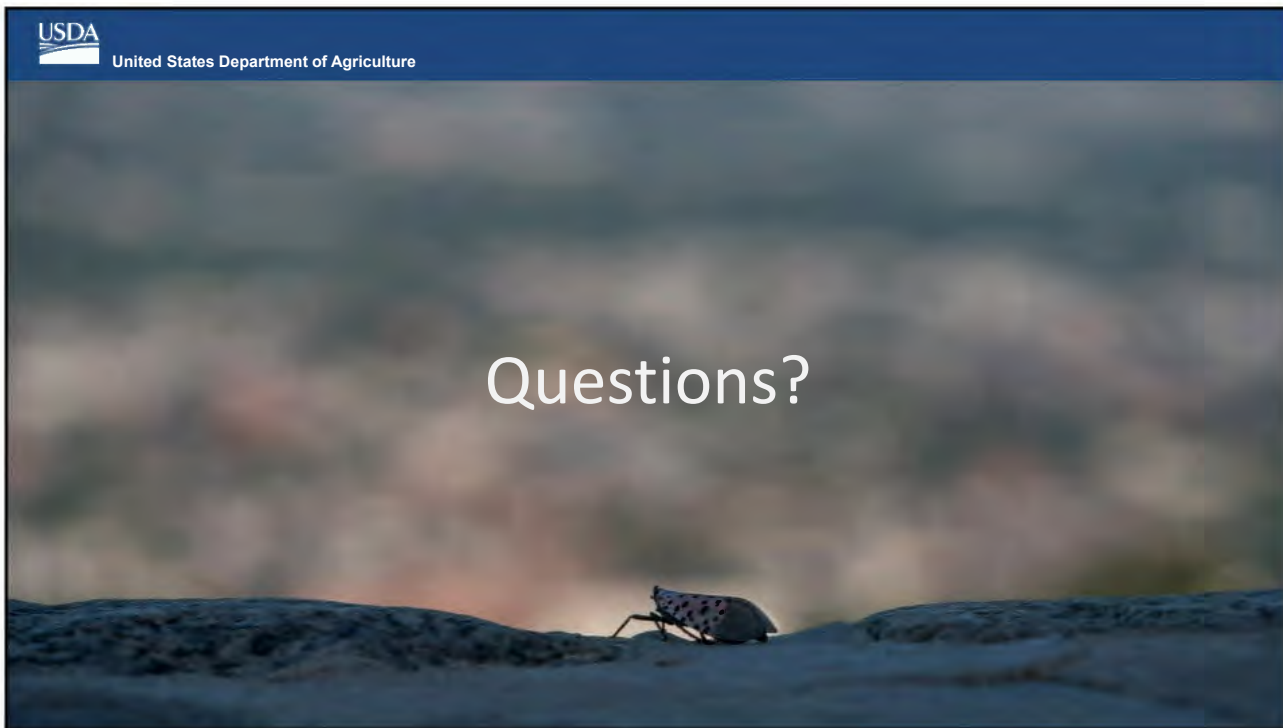
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## SLF – FUTURE

- Canine Project – Use of canine for detection – multi-state region approach
- Alternatives to current pesticides / pesticides for maritime and air cargo
- Further development for EA and mist-applications
- New revisions to PPQ SLF website and outreach material
- Research to inform management recommendations for green industries

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# Spotted Lanternfly

Keeping this Pest out of California  
 Presentation to California Nursery Advisory Board | September 9, 2021

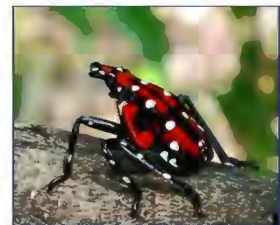
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## Spotted Lanternfly

*Lycorma delicatula* (White) (Hemiptera: Fulgoridae)



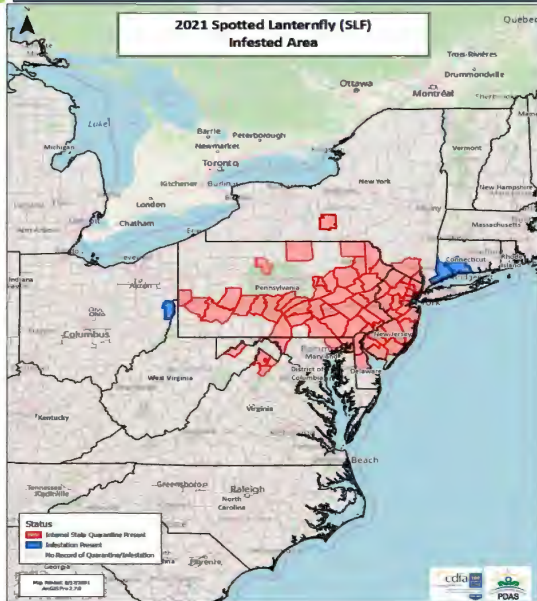
- Large in size (up to 25 mm long) & colorful.
- Detected in 2014 in Pennsylvania.
- Likely hitchhiked as egg mass on imported stone or associated packing materials.
- Lays eggs on any flat surface, including objects like the sides of trains including tree trucks as well as random non-living objects such as vehicles.
- Feeds on tree of heaven (*Ailanthus altissima*), but also appears to be preferring grape in North America.



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# Spotted Lanternfly

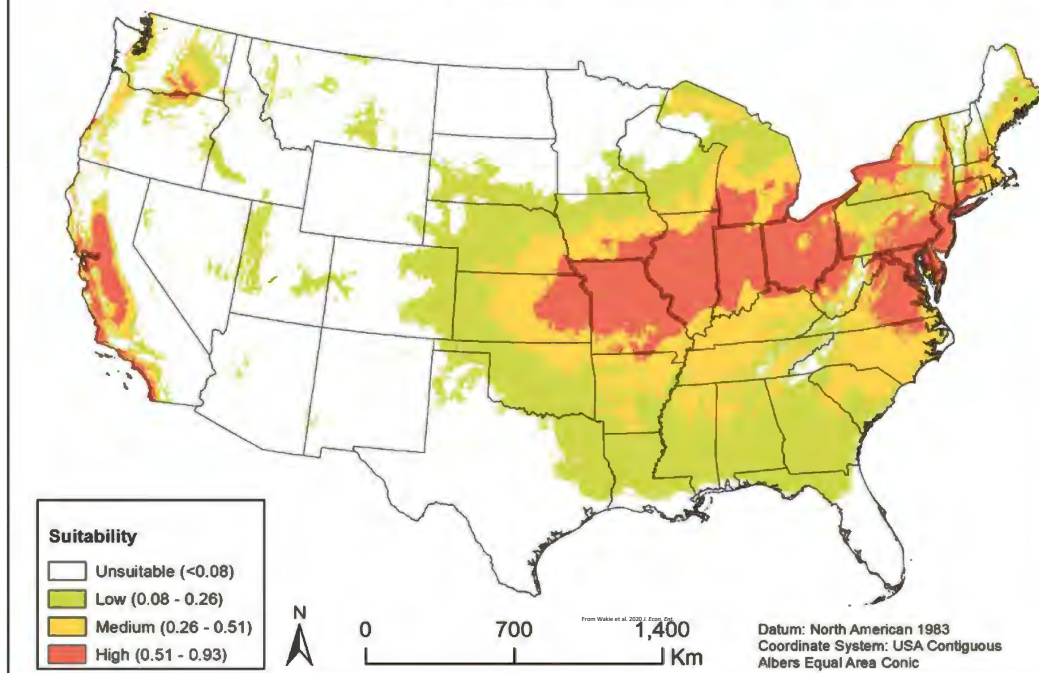
*Lycorma delicatula* (White) (Hemiptera: Fulgoridae)



- 9 states with infestations – Connecticut, Delaware, Maryland, New Jersey, New York, Ohio, Pennsylvania, Virginia and West Virginia
- 6 states with interior quarantines (no federal quarantine)
- 10 adults found in California on air cargo flights in 2019
- 44 (two live) adults found in California on air cargo flights in 2020
- Nine adults found so far in California on air cargo flights in 2021
- One non-viable egg mass, one dead adult and dead nymphs (three interceptions) found at the border in 2021

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## Potential distribution of spotted lanternfly in the United States



From Wakie et al.  
2020 *J. Econ. Ent.*

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## Impacts to Grapes



- Mass feeding kills vines
- Honeydew & sooty mold – secondary “infection” affects photosynthesis and other plant physiology
- Reduced freeze tolerance, failed fruit set



Photos: Erica Smyers, Penn State U; KYW News; WFMY News

*“We have vineyards in Pennsylvania that, after two years ... **are dead**. They’re done. Kills the plant, you’re out of that business.”*

-Pennsylvania Secretary of Agriculture



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# Impacts to Grapes



- Peak feeding near & at harvest
- Feeding can affect ripening/sugars
- Spraying disrupts harvest timing



*Photo: Erica Smyers, Penn State University*

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# Tools in the Toolbox



*Photo: Heather Leach, Penn State University*

## INSECTICIDE SPRAYS:

- Mostly pyrethroids & neonicotinoids against nymphs/adults
- Repeat treatments necessary

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# Tools in the Toolbox



- Tree of heaven removal and treatment
- Egg scraping

### In the Pipeline

- Biocontrol with parasitoid wasps and entomopathogenic fungi (biopesticides)
- Biocontrol of tree of heaven using plant pathogens



Photos: Erica Smyers, Penn State U; Putah Creek Council

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## European Grapevine Moth

## Spotted Lanternfly

<b>Lure</b>	Effective pheromone lure	<b>NO LURE</b>
<b>Mating Disruption</b>	Available	<b>NO MATING DISRUPTION</b>
<b>Dispersal</b>	Human-mediated dispersal limited to host material and "dirty" ag equipment	Human-mediated dispersal more similar to gypsy moth, regulatory challenges
<b>Research</b>	Well studied, established control methods	Not yet well studied in U.S.
<b>Food</b>	Primarily feeds on and dependent on grapes Feeds on leaves and fruit	Moves between crops & landscape Feeds on shoots/wood



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# What We Have Done

- A-rating from State Primary Entomologist
- Training for county regulatory staff from PHPPS and PDCP through Pest Prevention University
- Advisories to state/county staff
- Border Station inspections
- Air Cargo inspections
- CDFA participation in SLF Summit and national meetings



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# What We Are Doing

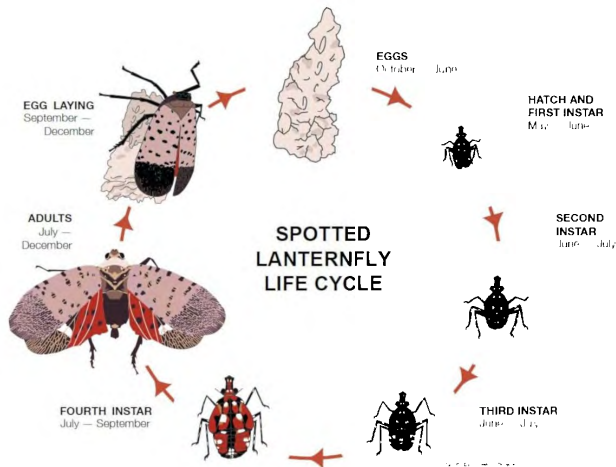
- Risk-Based Detection Survey
  - Initial survey conducted in 2020
  - 2021 survey in Aug/Sep
- Est. of California State Exterior Quarantine - 2021
- Biological Control efforts
  - CDFA research grant extended to UC Riverside
  - USDA, Cornell and Penn State also investigating parasitoids and pathogens



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# What We Are Doing



- Formation of a CDFA sponsored Science Advisory Panel
  - Gain input/insights from university and federal scientists on SLF research/operations in infested areas
  - Includes numerous scientists from eastern states, California, and USDA
  - 2-day event in September via online venue
- Development of a California Statewide Action Plan
  - California-specific approach to detection, delimitation, regulatory action, communication plan, and outreach

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# What We Are Doing

## CDFA/CACASA SPONSORED RESEARCH EFFORTS



- Develop and deploy training module to familiarize Master Gardeners with SLF; develop an effectiveness evaluation of the training module with citizen scientists.
- Conduct host specificity testing using SLF in the UC Riverside Biosecurity Level 3 contained research facility. This data will help estimate future range potential in CA.
- Develop risk-based maps and models to forecast the establishment of SLF within CA, and support pathway analysis of SLF transport potential from known infested regions.
- Mapping of crop species at risk to SLF infestation in CA to help further refine modeling efforts for pest establishment.
- Determine suitability of specialty fruit and nut crops (avocado, almond, citrus, olive, etc.) as a host for SLF nymphs and adults. Evaluate feeding damage and host response

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# Outreach in Development

Content for ad

## Keep Spotted Lanternfly Out of CA

**Bad bug alert! Spot it? Report it!**

CDFA Pest Hotline 1-800-491-1899

Print ads: include [short URL] ([cdfa.ca.gov/pdcp/board/spottedlanternfly.html](http://cdfa.ca.gov/pdcp/board/spottedlanternfly.html)) and QR code

CDFA logo and PD/GWSS logo



**Egg mass**  
Sept.-June

**Early nymph**  
April-July

**Late nymph**  
July-Sept.

**Adult**  
July-Dec.

- UC Master Gardeners Sentinel program
- PD/GWSS Board developing communications toolkit and advertising campaign
- iNaturalist and community-based science outreach
- Outreach with stakeholders about SLF across the state
- Coordination with other states including a unified western states outreach effort



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# Collaboration

**DATA SHARING:** establishing MOU's for detection activity data and research efforts

**TRAINING** for air cargo inspections, field crews, regulatory staff and citizen scientist efforts

**COOPERATION** to harmonize efforts for quarantines

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# Questions?



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