County of Santa Cruz

COUNTY ADMINISTRATIVE OFFICE

701 OCEAN STREET, SUITE 520, SANTA CRUZ, CA 95060-4073

(831) 454-2100 FAX: (831) 454-3420 TDD: (831) 454-2123

SUSAN A. MAURIELLO, J.D., COUNTY ADMINISTRATIVE OFFICER

Agenda: December 12, 2000

December 6, 2000

BOARD OF SUPERVISORS
County of Santa Cruz
701 Ocean Street
Santa Cruz, CA 95060

Dear Members of the Board:

Attached is the Agricultural Commissioner's proposed plan for conducting the Glassy Winged Sharpshooter/Pierce's Disease Control Program, as submitted. I am forwarding the Plan to you without the recommendation of this office at this time. While I appreciate the efforts of the Agricultural Commissioner to address the Board's stated concerns regarding the potential for the use of pesticides, I believe that the County's plan could be improved if additional approaches are explored with the State and the Agricultural Commissioner. I was unable to complete this review by the time the material was scheduled to be released at 5:00 Wednesday, December 6, 2000 and actually I did not release the report until 6:30 that evening.

Additionally, several members of the Pesticides Action Coalition had expressed their desire to provide a complete analysis of the proposed plan prior to your Board's decision to submit the Plan to the State. Representatives of the agricultural community have expressed similar desires to the Agricultural Commissioner. I believe that the County's plan would benefit from the receipt and review of their input prior to finalizing a staff recommendation to your Board.

Based on the limited review I was able to conduct to address the Board's stated issues and given the community's request for additional time to provide input, I recommend that your Board review the attached draft plan, receive the input of the public and allow the staff the opportunity to attempt to address any issues that are raised by the Board with the State and the Agricultural Commissioner. I would propose that we return to the Board on January 9, 2001 with our finalized recommendations.

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It is therefore recommended that the Board consider the attached report and direct staff to return on January 9, 2001 with a proposed plan for Board consideration.

Very truly yours,

Susan A. Mauriello
County Administrative Officer

cc: Agricultural Commissioner
Pesticides Action Coalition

s.gwss

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County of Santa Cruz

OFFICE OF THE AGRICULTURAL COMMISSIONER

DAVID W. MOELLER
AGRICULTURAL COMMISSIONER
SEALER OF WEIGHTS AND MEASURES
DIRECTOR, MOSQUITO AND VECTOR CONTROL

November 30, 2000

Agenda: December 12. 2000

Board of Supervisors
County of Santa Cruz
701 Ocean Street
Santa Cruz, CA 95060

Glassy-winged Sharpshooter/Pierce's Disease Control Program Revised Workplan

Dear Members of the Board:

At your meeting on November 21, 2000, your Board considered an item proposed by the Agricultural Commissioner to authorize his submission of a glassy-winged Sharpshooter/Pierce's disease control program workplan to the California Department of Food and Agriculture (CDFA) for their review. As you will recall, CDFA will not provide finds under contract to the Agricultural Commissioner for a glassy-winged sharpshooter (GWS S) control program until (1) the Agricultural Commissioner, is designated as the local public entity authorized by the Board of Supervisors to conduct the control program and (2) the Agricultural Commissioner submits a workplan to CDFA.

However, because of some specific concerns about the response and treatment section of the workplan expressed both by your Board and members of the community, your Board directed the Agricultural Commissioner to return with a revised draft plan which would further amplify provisions for public input into the selection of a treatment method and for submission of any proposed treatment plan to your Board for its review.

In response to your direction, we have substantially rewritten Section C Response/Control Program of the workplan. The most significant changes or additions have been made to subsection I. Public Land and Private Residences. They are (1) the Board will receive timely status reports on all aspects of the GWSS control program; (2) upon discovery of an infestation of GWSS on public land or at private residences, the Agricultural Commissioner will consult with the County's IPM Advisory Group in selecting possible treatment methods for a known infestation; (3) the specific control plan developed by the Agricultural Commissioner to respond to the infestation will be referred to your Board for its consideration; (4) extensive measures to inform, educate and notify the public and affected private property owners will be employed prior to implementation of the control plan. -Additionally, a provision in the original draft of the workplan which describes an appeal process has been modified and is now identified as Section D Local Appeal Process. All other sections of the workplan remain unchanged except for a few non-substantive editorial changes done for the sake of clarity and form. We elected not to use an underline/~~strikeout~~ format, because of the extensive revisions to Section C, but instead have provided your Board with complete, new copies of the workplan, incorporating the revisions.

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Your Board also directed the Agricultural Commissioner to provide information about control measures taken by other agricultural commissioners and boards of supervisors in counties where GWSS infestations have already been discovered on public land and in residential areas. An attachment "Control of GWSS Infestations in Residential Areas" has been included with this letter.

In conclusion, while this workplan is a document which is intended to meet legislated requirements necessary for State funding of a local GWSS control program, its primary purpose is to describe a detailed plan to follow in order to prevent GWSS's introduction into our uninfested county and to slow its spread throughout the state; to employ strategies which will quickly detect its presence, and to provide for effective control measures against infestations. While much of the workplan is detailed and very prescriptive in many of its requirements, especially those directed at the agricultural commissioner and his responsibilities towards abating known pests and the industry to prevent the spread of the pest, nevertheless, with regards to GWSS control activities on public land and private residences, the State has intentionally provided, except where there are statutory authorities to the contrary, for local discretion in designing an appropriate control response to GWSS infestations. Furthermore, the State expects, and good pest management practices dictate, that in the case of GWSS infestations, control measures will be applied on a property-by-property basis using ground equipment.

If your Board takes action today to designate the Agricultural Commissioner as the local public entity and approves this revised workplan for submission to CDFA, the process for acquiring State funding for a local GWSS control program will begin. When CDFA approves our workplan, we will return to your Board at a later date for approval of a GWSS contract and to accept unanticipated revenue.

It is therefore RECOMMENDED that your Board:

1. Designate the Agricultural Commissioner as the local public entity authorized to conduct a GWSS/Pierce's disease control program in cooperation with CDFA.

2. Authorize the Agricultural Commissioner to submit the revised workplan to CDFA for a glassy-winged sharpshooter/Pierce's disease control program.

Sincerely,

David W. Moeller
Agricultural Commissioner

Approved: _____
SUSAN A. MAURIELLO
COUNTY ADMINISTRATIVE OFFICER

Attachment

Pierce's Disease Control Program
November 30, 2000

Attachment
Agenda: December 12, 2000

Control of GWSS Infestations in Residential Areas

Contra Costa County

Early in October GWSS was found on 34 properties in a new residential development consisting of over 200 homes. The Agricultural Commissioner informed the county Board of Supervisors of the extent of the infestation, and submitted a plan to treat the infestation with carbaryl. The plan included elements of notification and monitoring. The Board of Supervisors approved the Agricultural Commissioner's GWSS workplan, authorized the Agricultural Commissioner to sign an amended contract with CDFA, and directed him to abate the infestation. Two public meetings were held during which the residents and Agricultural Commissioner worked out details regarding spray schedules and methods of notification. The Agricultural Commissioner met individually with residents as necessary to address specific concerns, including the use of tarps over ponds and pools. Carbaryl was sprayed from the ground on all but one of the properties. The resident did not give permission; therefore that property was not sprayed. Carbaryl (tradename "Sevin") is registered for use on a wide variety of plants and is available for use by home gardeners.

Tulare County

In June the Agricultural Commissioner informed his Board of Supervisors that intensive survey showed GWSS to be infesting a ten square mile area in Tulare County. The Board of Supervisors authorized the Agricultural Commissioner to sign a contract with a pest control operator to control the pest. The Agricultural Commissioner held a town meeting open house prior to beginning treatments. Toxicologists and environmental monitoring representatives were present to answer questions at the meeting. Subsequently, carbaryl was applied to the landscaping on nearly 1,000 properties in the Porterville area. Six properties were not sprayed because permission was denied.

Sacramento County

In July, after seven glassy-winged sharpshooters were trapped in Rancho Cordova, subsequent surveys showed that 480 properties were infested with GWSS. The Agricultural Commissioner asked his Board of Supervisors for concurrence with his recommendation for control. The Board of Supervisors supported the Agricultural Commissioner's decision, declared GWSS to be a public nuisance, directed the Agricultural Commissioner to carry out delimitation and treatment in Rancho Cordova, and authorized him to sign a contract with CDFA to reimburse the county for expenses. The Agricultural Commissioner held a community meeting prior to beginning treatments to answer questions and address the concerns of the affected property owners. Eight of the four-hundred eighty properties withheld permission for treatment with carbaryl. The Agricultural Commissioner obtained inspection warrants in order to determine if those properties were infested with GWSS. If no GWSS life stages were found during the inspection, the property was not treated. If GWSS was found on the property, carbaryl was applied to the property under authority for abatement of a public nuisance.

County of Santa Cruz

OFFICE OF THE AGRICULTURAL COMMISSIONER

DAVID W. MOELLER
AGRICULTURAL COMMISSIONER
SEALER OF WEIGHTS AND MEASURES
DIRECTOR MOSQUITO ANC VECTOR CONTROL

PIERCE'S DISEASE CONTROL/ GLASSY-WINGED SHARPSHOOTER PROGRAM

Local Assistance
County of Santa Cruz
Agreement Number
Table of Contents

Rev 11/30/00

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175 WESTRIDGE DRIVE, WATSONVILLE, CALIFORNIA 95076 TELEPHONE (831) 763-8080 FAX (831) 763-8234

Section A

(Page Reserved for Board of Supervisors Minute Order)

Section B

Local Public Agency's Designated Pierce's Disease Coordinator And Contact Information

Name/Title:	David W. Moeller/Agricultural Commissioner (or designee)
Mailing Address:	175 Westridge Drive, Watsonville, CA 95076
Phone Number:	(83 1) 454-2620
Fax Number:	(83 1) 763-8234
Email Address:	Agcomm@aol.com

RESPONSE/CONTROL PROGRAM FOR PIERCE'S DISEASE AND ITS VECTORS

Objective

To implement an intergovernmental, coordinated state and community-wide plan to provide detection and delimitation of the glassy-winged sharpshooter (GWSS) in Santa Cruz County and suppress or eradicate any pc pulations as rapidly as possible.

Lead Agency

The Santa Cruz County Department of Agriculture (hereafter referred to as the Agricultural Commissioner) is th: lead agency and is designated by the Santa Cruz County Board of Supervisors as the local public entity to cc nduct the Pierce's Disease Control Program (PDCP) within the County. The California Department of Food ar d Agriculture (CDFA) will work in cooperation with the Agricultural Commissioner, the Santa Cruz County Board of Supervisors, the State PDCP Science Advisory Panel, and other interested parties in implementing this plan. The CDFA will provide biological control program guidance and support to Santa Cruz County as favorable agents become available.

Agricultural Commissioner Responsibilities

- To act as lead agency for the PDCP activities occurring within the jurisdiction of the county.
- To act as lead liaison to local City Councils, the County Board of Supervisors, county legal counsels, and other county agencies, regarding the PDCP activities.
- To provide timely status reports on the results of all trapping surveys and inspection efforts, including detailed maps of surveyed areas and infested properties to the Board of Supervisors and other interested parties.
- To promptly conduct all delimitation and intensive surveys in the county. Additional survey staff may be contracted from the California Conservation Corps. The CDFA will provide on-site expertise, as needed
- To select an appropriate treatment/control method, notify residents, and identify any sensitive sites within the proposed treatment area.
- To direct any pesticide applications as may be necessary to control GWSS.
- To direct post-treatment monitoring.

I. Public Land and Private Residences

Delimitation Survey

Upon discovery of an infestation, the Agricultural Commissioner will notify the Board of Supervisors and immediately conduct a delimitation survey. The purpose of the survey is to quickly determine the extent of the infestation. The survey will be conducted in accordance with established CDFA protocols (Attachment 1). Records of properties surveyed and results of the survey (both positive and negative) will be accurately kept.

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Inr-ensive (Property-by-Property Survey)

Following the delimitation survey, the Agricultural Commissioner will complete an intensive survey of all properties within the delimited area to identify the full extent of the infestation.

The Agricultural Commissioner shall:

- Develop and maintain working host records during this intensive survey.
- Develop detailed maps or block folders (property-by-property) of the surveyed and infested area.

At the conclusion of the survey the Agricultural Commissioner will report to the Board of Supervisors on the results of the survey.

Treatment/Control Options

The Agricultural Commissioner will consult with the Santa Cruz County Integrated Pest Management Departmental Advisory Group (IPM-DAG) in selecting the treatment and control methods appropriate to the specific site of infestation. In the development of any control plan for residential or public land, biological cc ntrol agents, soft insecticides such as oils and soaps, mass-trapping, bug vacuuming, light traps and lures, and other available control mechanisms will be considered for use as alternatives or in conjunction with the use of pe sticides. After consulting with the IPM-DAG and CDFA, the Agricultural Commissioner will recommend a control strategy to the Board of Supervisors for their consideration. The recommendation will address selection of treatment material(s), public outreach, environmentally sensitive areas, medical/veterinarian information, treatment notification and procedures, and environmental monitoring, as described below.

Treatment Material Selection

The State PDCP Science Advisory Panel will be consulted for information on the latest available materials for use. The materials will be reviewed to determine the most appropriate to use based on: 1) lowest toxicity level m aterial effective against the pest; 2) registered use as a general treatment for residential plantings; 3) registered o n most plant species known to be hosts (feeding and oviposition) for GWSS; 4) known to control leafhoppers; 5) location and extent of the infestation.

Public Outreach

T he Agricultural Commissioner will conduct a meeting with affected residents prior to beginning any treatment program. The information that will be provided at the meeting is dependent upon the specific treatment and control methods that will be used. As appropriate, this may include maps of the infested area, GWSS biology, method of notification prior to and after scheduled treatments, medical and veterinary information, environmental monitoring, and telephone help line numbers. The Agricultural Commissioner will meet individually as necessary with affected residents to address concerns. No pesticide applications will be made on private property without the consent of the resident, Information will also be provided to the public through the media.

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Threatened/Endangered Species/Environmentally Sensitive Areas

The Agricultural Commissioner, in conjunction with the U.S. Fish and Wildlife Service, the California Department of Fish and Game, and the CDFA will identify any threatened/endangered species and/or environmentally sensitive areas within the proposed treatment area before treatments begin. Appropriate mitigation measures will be taken in these sensitive areas. The Agricultural Commissioner will notify all registered beekeepers near the infested area of the GWSS treatment activities.

Medical/Veterinarian Information

The Agricultural Commissioner will contact the Santa Cruz County Health Officer (Health Officer) with details of any proposed treatment. If the Health Officer has questions about public health aspects of the program, he can consult with Dr. Peter Kurtz, CDFA's Senior Medical Coordinator, at (916) 654-1211.

Questions relating to Animal Health will be referred to CDFA's Animal Health and Food Safety Services at (916) 654-1447. A Veterinary Fact Sheet may be prepared and provided for questions relating to pets or livestock.

Pre-Treatment Notification

Pre-treatment notification will be conducted through the local news media and by door-to-door notification.

- Notices will be in languages appropriate to the affected community and will include information regarding material used, precautions, date of application, and a telephone number and contact for the Agricultural Commissioner staff.

- Notices will be given "door-to-door" to infested properties and adjacent properties.

General Treatment Procedures

Implementation of treatments will only begin following the conclusion of the intensive survey, review of the proposed control plan by the Board of Supervisors, and after all community information and notification measures have been taken. Maintenance of good community relations will be essential. All pesticide applications will be made by certified Pest Control Operators under the direction of the Agricultural Commissioner. Pesticides will be used according to registration and label directions. Sound pesticide safety procedures will be followed.

- Number of applications: Minimum of two.
- Interval: As allowed by label.
- Rate: Follow label directions.
- Post-treatment notice with re-entry statement and pre-harvest interval for treated fruits/vegetables.
- Treatment crews will be properly trained and equipped according to established CDFA protocols for treatment of residential properties,
- Property treatment records will be kept.
- The Agricultural Commissioner will ensure that all treatment activities are in compliance with all pesticide laws and regulations.

Environmental Monitoring

The CDFA, in cooperation with the Agricultural Commissioner, will arrange for environmental monitoring to be conducted by the California Department of Pesticide Regulation (CDPR), Environmental Monitoring/Pest Management Branch. The Agricultural Commissioner's staff will work closely with environmental monitoring personnel to identify suitable sites. The following may be mdnitored

- Surface water, turf, foliage, available fruits and vegetables, outside air and tank mix.
- Identified sensitive areas.

Additional monitoring may be necessary if needs are identified. However, if sufficient data are gathered indicating no adverse environmental impacts, the environmental monitoring may be modified or deleted from the program. This decision will rest with the CDFA and the Agricultural Commissioner.

Post-Treatment Monitoring

An assessment of the GWSS populations will be conducted on a limited number of selected properties throughout the treatment area to determine the overall effectiveness of the treatments.

- Pre-treatment sampling will be conducted and counts of the GWSS will be made to determine numbers of the GWSS life forms.
- Post-treatment sampling will be conducted using the same protocols to ascertain effectiveness of the treatment(s).

II. Production Agricultural Land

Nursery - Upon detection and confirmation of any viable life stage of GWSS within a nursery, the entire nursery will be inspected to determine if the source of the find is within the confines of the nursery. Once the determination has been made that the initial find was as a result of an infestation within the nursery, the nursery will be put under hold order and all host material within the nursery will be treated with a properly registered pesticide to control GWSS. A follow-up survey will be completed before the nursery is allowed to sell or ship any treated stock. Surveys may be completed every other month to ensure the infestation has not spread within the nursery or to surrounding areas. When any viable lifestage of GWSS is found within a commercial nursery during visual inspection, the owner will be notified of the positive find. If an infestation is determined, the nursery will be treated by the nursery owner with a properly-registered pesticide to control GWSS. A post-treatment follow-up survey will be completed prior to the release and sale of any treated GWSS host material. All nurseries treated for GWSS will be monitored to ensure the GWSS-free status of its host material is maintained. When any viable lifestage of GWSS is detected in a commercial nursery, the trapping density will be increased from two (2) traps per acre to ten (10) traps per acre. These traps will be serviced biweekly.

Cropland – Upon detection and confirmation of any viable lifestage of GWSS on a crop, the grower/owner of the crop will be notified that GWSS has been found. Mandatory treatments will commence when an infestation has been determined through visual survey and/or trapping. The crop will be treated by the grower/owner of the property with a registered pesticide to control GWSS. In cases where the grower refuses to treat the property, summary abatement action may be taken to reduce the threat of GWSS establishment in an agricultural area. In the case of an organic grower. the Agricultural Commissioner will evaluate alternative methods to abate the pest.

PIERCE'S DISEASE CONTROL PROGRAM

LOCAL APPEAL PROCESS

Pursuant to Section 36.5 1 (c) (3) of the regulations, the Agricultural Commissioner shall conduct a hearing if any application of the workplan is appealed in writing to him. Once the Agricultural Commissioner receives an appeal, he will respond within 10 days to the appellant. The appellant will be given notice as to the date and time for the hearing. At the hearing, the appellant will be given the opportunity to be heard by the Agricultural Commissioner and to present evidence on matters concerning the application of the workplan. The Agricultural Commissioner will render a decision and respond to the appellant in writing within 30 days of the hearing. The results of said hearing will be transmitted to the Board of Supervisors and CDFA.

Section E

Agreement Number 99-0814
County of Santa Cruz

SURVEY PLAN

2000 / 2001 Fiscal Year Plan
Santa Cruz County

The Santa Cruz County Department of Agriculture will utilize the CDFA GWSS Survey Guidelines (Attachment 2) as its survey protocol.

Statewide Detection and Survey

	Visual Survey Hours	Number of Trap Inspections	Trap Inspection Hours
Nursery Surveys:	540	2500	370
Urban Surveys:	120	6000	520
High Priority Cropland:	1000	2500	320
Low Priority Cropland:	**0**	**0**	**0**
High Priority Winery Surveys:	40	1.50	60
Grid Surveys:	**0**	**0**	**0**

Number of Traps in Service:	900

Nursery Inspections

	Number of Nursery Inspections	Hours
Inspecting Material for Shipment to Uninfested Counties:	N/A	N/A
Inspecting Material Shipped from Infested Counties:	1200	1700
Number of Nurseries:	30	

Rapid Response / Delimitation

	Number of	Hours
Properties Visual Survey:	N/A	N/A
Number of Trap Inspections:	N/A	N/A
Number of Traps in Service:	N/A	N/A
Number of Premises to be Treated:	N/A	N/A
Total Treatments Made:	N/A	N/A

County Statistics

	Number of
Number of Nurseries Shipping Host Material to Uninfested Counties (from Counties Only):	N/A
Number of Properties Newly Found With a Confirmed Viable Life Stage of GWSS:	N/A

Section F

Agreement Number 99-0814
County of Santa Cruz

ENFORCEMENT MECHANISMS

On July 25, 2000, Pierce's Disease Control Program regulations were adopted and include the standards for the movement of nursery stock and bulk grapes from infested areas to non-infested areas (Section 3658, Title 3, California Code of Regulations), certification requirements (Section 3659, T. 3, CCR), and exemptions (Section 3660, T. 3, CCR). These regulations are intended to prevent the artificial spread of glassy-winged sharpshooter.

The statutory authority for these regulations is Sections 6045, 6046, and 6047, Food and Agricultural Code (FAC). To enforce these provisions, the Secretary or commissioner is empowered to conduct inspections and investigate any suspected violations; each commissioner is an enforcing officer for all laws and regulations to prevent the spread of plant pests and to certify shipments of plant material as to its pest freedom.

The Food and Agricultural Code provides several options for enforcement of the requirements for the Glassy-winged Sharpshooter (GWSS) / Pierce's Disease (PD) Program. This flexibility allows enforcement actions chosen as a result of a violation(s) to be proportionate to the nature/severity of the violation with progressive enforcement for repeat violators.

Santa Cruz County is a non-infested GWSS County. Therefore we do not have any local nursery or origin bulk grape agreements. We do however maintain local destination bulk grape compliance agreements that are necessary with local receivers of bulk grapes from infested counties. The following are the Food and Agricultural Code and California Code of Regulation Code Sections that are applicable to us:

Penalties:

1 Any violation of applicable provisions of Food and Agricultural Code Division 4, Plant Quarantine and Pest Control, is an infraction punishable by a fine of not more than $1,000 for the first offense and a misdemeanor for a second or subsequent offense within three years (Section 5309, FAC).

2 Except where otherwise expressly provided, a violation of any provision of this division is a misdemeanor (Section 5027, FAC). In addition to other remedies provided, any person violating the GWSS regulation requirements can be civilly liable up to $10,000 for each violation; in lieu of any civil action, the Secretary or commissioner may level a civil penalty for up to $2,500 for each violation (Section 53 10, FAC).

3 Anyone who negligently or intentionally violates a regulation and imports a GWSS infested plant that results in an infestation, or the spread of an infestation may be civilly liable in an amount up to $25,000 for each violation [Section 5028(c), FAC].

4 It is unlawful to sell any nursery stock without a valid nursery license (Section 6721, FAC). The Secretary can revoke or suspend a nursery license if a nursery has willfully refused to comply with all laws and regulations relative to any pest that might be carried by nursery stock (Section 6761, FAC).

5. It is unlawful for anyone to ship, sell, deliver or transport nursery stock in California without either a Hold for Inspection ("blue tag") or a valid nursery stock certificate (Sections 6922 and 6923, FAC). The commissioner may revoke or suspend the right to use any nursery stock certificate or other shipping permit because of non-compliance (Section 6968, FAC). It is unlawful to alter or otherwise misuse any shipping permit or nursery stock certificate (Section 6927, FAC).

Authority to Inspect:

1. Any one receiving or moving any nursery stock must notify the commissioner immediately upon arrival and hold the nursery stock for inspection unless it is accompanied by a valid nursery stock certificate. Some counties have elected to waive that exemption and require GWSS host plant material entering the county (or non-infested area of a county) to be accompanied by a Warning Hold For Inspection certificate (Section 6505, FAC). In this case, it is unlawful even to move nursery stock within a'county without forwarding a manifest specified by Food and Agricultural Code Section 6925 and 6926.

2. The Santa Cruz County Agricultural Commissioner shall develop and implement a CDFA approved Pierce's disease workplan (Section 6046, FAC)

3. The Secretary may establish, maintain, and enforce regulations consistent with the intent of the Legislature as expressed in this article as may be necessary to implement this article (Section 6047, FAC).

Authority to Enter into Compliance Agreements:

1. The Secretary or commissioner may enter into compliance agreements to facilitate the movement of host plant material. The compliance agreement provides the survey, treatment, and handling requirements necessary to assure freedom from GWSS. Violation of the provisions of a compliance agreement is unlawful and any person that violates the provisions of a compliance agreement can also be held liable civilly for up to $10,000. Remedies provided here do not supercede or limit any and all other remedies available to the State (Section 5705, FAC).

Authority to Hold / Return / Destroy:

1. If a shipment of nursery stock moving *intrastate* is found to be infested with GWSS, or there is reasonable cause to believe that the shipment may be infested, a warning hold order may be placed on the shipment (Section 6521, FAC) specifying the treatment, abatement or return requirements. Similarly, a warning hold may be placed on a shipment *entering* the state if it is found to be infested with GWSS, or there is reasonable cause to believe that the shipment may be infested, with GWSS. It is unlawful, except by written permission, to move or divert, any plant shipment placed under a warning hold order without written permission. It is unlawful to remove, destroy, or otherwise alter any warning hold order (Section 6303, FAC).

2 If or when GWSS is found infesting any location, the Secretary or commissioner may require that any plant, or other GWSS host, be held at that location, and may require any host within five miles of that location be held as well (Section 5701, FAC). It is unlawful to move any plant or host in violation of a hold order.

3 Any location, plants, or other things found infested with GWSS can be considered a public nuisance and may be prosecuted as such and any remedies provided by law for the prevention and abatement of a public nuisance will apply. It is unlawful for any person to maintain a public nuisance. The remedies provided here are in addition to any other applicable remedies (Sections 5401 and 5402, FAC).

Operating Standards:

1. To facilitate the investigation of violations, proof of ownership is required of any person buying, selling, or transporting a shipment of plant material intended for commercial sale and it is unlawful for any person to alter any proof of ownership document (Sections 5030 and 5031, FAC).

2. Under the PD/GWSS regulations, all host plants of GWSS moving from an infested area to a non-infested area must be certified free of GWSS (Section 5721, FAC; Sections 3060.2, 3060.4 and 3659, CCR). Certification can be based on surveys confirming non-infested status, inspection, or by approved treatment. It is unlawful to alter or otherwise wrongfully use a certificate (Section 5208, FAC).

STANDARDS AND RESTRICTIONS

This workplan does not include any variations from the standards set by law. If the Agricultural Commissioner finds that there is clear and convincing evidence to support a more stringent standard than is set by regulation, then the Agricultural Commissioner will notify CDFA and provide detailed justification as to the need for the more stringent standard.

Section H

WORKPLAN ASSURANCES

1. The Santa Cruz County Department of Agriculture's planned producer outreach and training program in accordance with Food and Agricultural Code Section 6046(h)(1) - (See Attachment 3) will be coordinated with CDFA. The development and delivery of producer outreach information and training to local communities, groups, and individuals will be done through public meetings and the local PDCP task force. Efforts will be directed towards raising awareness regarding Pierce's disease and its vectors and workplan involvement through direct mailing, local media, and press releases.

2 The Santa Cruz County Department of Agriculture's training plan for the Agency's employees in accordance with Food and Agricultural Code Section 6046(h)(2) - (See Attachment 3) will be coordinated with CDFA. The biology, survey, and treatment of Pierce's disease and its vectors will be the basic components of the training. Scientific Advisory Panel discussions on GWSS and Pierce's disease will be included in this training for key Agency employees. The University of California Cooperative Extension will be a local resource for training and information for this program.

3 The Santa Cruz County Department of Agriculture plans to fully participate in the development and implementation of a data collection system in accordance with Food and Agricultural Code Section 6046(h)(5) - (See Attachment 3). These activities will be coordinated through CDFA. The data collection system will make it possible to track and report new infestations of Pierce's disease and its vectors in a manner respectful of property and other rights of those affected.

4. The Santa Cruz County Department of Agriculture will provide monthly program reports via the internet and financial progress reports as per CDFA guidelines.

(See Attachment 4 for a brief description of the outreach and training activities conducted by the Santa Cruz County Agricultural Commissioner.)

SANTA CRUZ COUNTY
BUDGET/FISCAL DISPLAY - FISCAL YEAR 2000-2001
GLASSY-WINGED SHARPSHOOTER/PIERCE'S DISEASE PROGRAM

SURVEY ACTIVITIES

Personnel Services			
Permanent Salaries	**Salary Rate**	**No. of Hours**	**Total**
Agricultural Inspector III	$21.89	250	$5,473
Agricultural Biologist Aide(s) (limited term)	$11.36	1710	$19,426
Secretary	$17.54	96	$1,684
Supervisor	$27.34	416	$11,373
	Subtotal		$37,955
Temporary Salaries			
Agricultural Biologist Aide(s) (extra help)	$11.36	2704	$30,717
	Subtotal		$30,717
Staff Benefits			
Permanent @ 33.3%			$12,639
Temporary @ 7.65%			$2,350
	Subtotal		$14,989
	TOTAL PERSONNEL SERVICES		$83.662

Operating Expenses		
General Expense/Supplies		$400
Postage		$200
Communication	(cell phone charges @ $120/mo)	$1,440
Travel		$300
Vehicle Expense	(see below)	$37,632
Indirect Cost (25% of total personnel services)		$20,915
	TOTAL OPERATING EXPENSES	$60,887
	TOTAL SURVEY ACTIVITIES	$144.549

Purchase two Ford Ranger XL @ $15,000 each
Obtain one temporary "loan" vehicle from county fleet
Maintenance charges from county of $7,632
(3 vehicles @ $212 per month per vehicle).

REGULATORY/TREATMENT ACTIVITIES - Not Applicable

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Attachment 1

GLASSY-WINGED SHARPSHOOTER

DELIMITATION SURVEY GUIDELINES

[Attach copy of Delimitation Survey Guidelines]

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GWSS Delimitation Grid

Grid is four square miles centered on the original detection site
Each square mile is subdivided into 16 subunits
64 subunits in four square mile area

(1) CENTER GRID (GREEN) = l/l 6 square mile (40 acres)

- Contains approximately SO-120 properties (assuming 2-3 properties/acre)
- Survey door to door: start on properties surrounding/adjacent properties first; if additional GWSS found move to peripheral properties and sample back towards center
- If GWSS found on periphery, no need to sample remaining properties (i.e. assume center grid is infested)

(2) FIRST BUFFER = ¼ of square mile or 160 acres

- Actual size is 3/16 of a square mile [center grid = 1/16 of a square mile]
- Each block with "2" is lb acres
- Survey (visually) two properties in each 10 acre block

(3) REMAINDER OF GRID = 3 ¾ square miles

- Composed of 60 (40 acre) blocks
- Sample (visually) this area by searching alternate grids (those colored yellow and subdivided in four subquadrants)
- Sample four properties in each designated block by inspecting one (1) property in each of the subgrids

Visual inspections approximately maximum of 250 properties as follows
Center grid ~ 100 residences
First buffer = 2x24 = 48 residences
Remainder of grid = 30x4 = 120 residences

When selecting survey properties outside the grid use biological bias by targeting properties which have:

- Citrus and a diversity of other evergreen/deciduous host plants (i.e. oaks, crype myrtle, eucalyptus, grapes, Prunus spp, etc.)
- Plants which have upright (vertical) flush (new) growth which can be sampled with a beating sheet or sweep net (eight feet high or lower).

Supplemental Yellow Panel Trapping (Optional)

- Place one yellow panel trap (in citrus) in each of the subunits not designated for visual survey
  Total = 30 traps

81

Service traps at least twice during course of visual survey. (Traps could be rotated between the four subunits (10 acre) every 1-2 weeks to sample 120 sites over a 4-8 week period.)

Note: Pattern of finds will determine subsequent survey in the grid.
(i.e. May want to survey in previously non-designated grids or those surveyed to help define the boundaries of the infestation.)

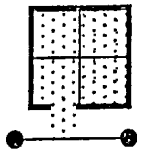
4 Square Mile Survey Grid
For Glassy-winged Sharpshooter

Notes:

- Total samples per square mile outside of core = 34
- Total samples per four-square-mile grid = 136 properties
- Bio-bias to: citrus, flush growth, sucker growth, oaks, grapes, crape myrtle

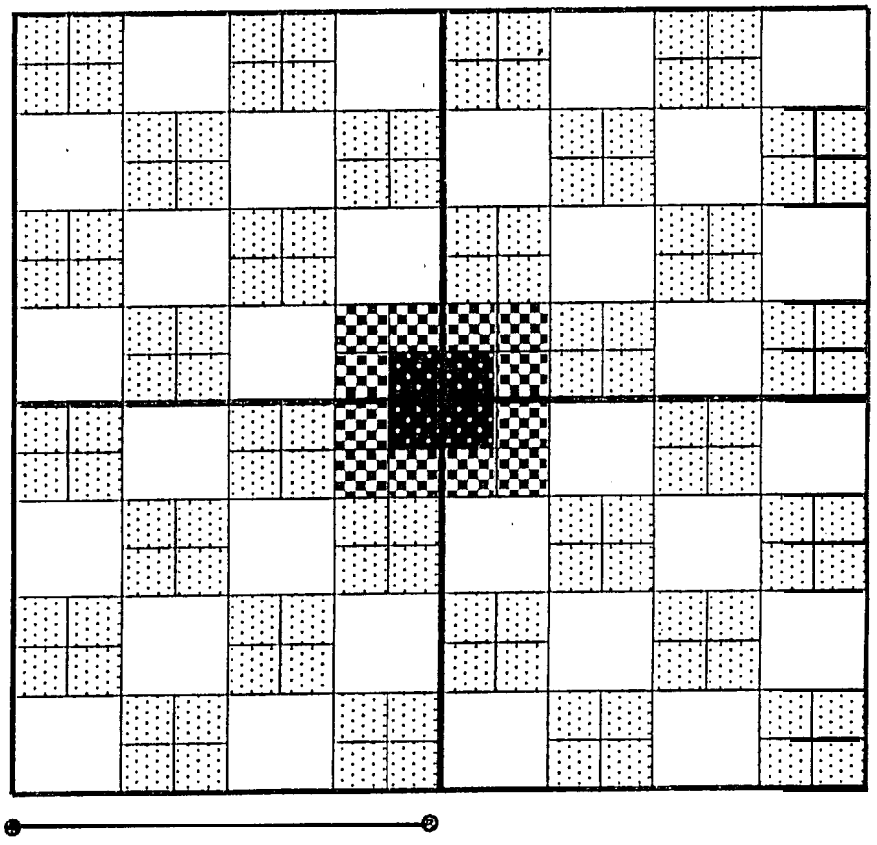
Original Find Site
100% Sampling

1st buffer around core
Sample at 2 properties per 10 acres



40 Acres
Sample at 1 property per 10 acres

1,320 feet



1 mile

GWSS DELIMITATION SURVEY

COUNTY ____________________ CITY/AREA ____

Date Surveyed	Address	Name	Phone	Infested ✓

Attachment 2

GLASSY-WINGED SHARPSHOOTER

SURVEY GUIDELINES

[Attach copy of Survey Guidelines here (section I, pages 1 - 7, and Appendix B, Monitoring for G WSS in Commercial Nurseries]

GLASSY-WINGED SHARPSHOOTER STATEWIDE SURVEY RECOMMENDATIONS AND GUIDELINES'

The glassy-winged sharpshooter (GWSS), *Homalodisca coagulata*, first reported in California in the early 1990's, is currently known to be widely distributed in the south coastal region of the State. Infested south coastal counties include Santa Barbara, Ventura, Los Angeles, Orange, San Diego, and adjacent inland areas of western San Bernardino and Riverside Counties. In the summer of 1998, GWSS was detected in commercial citrus and grape plantings located southeast of Bakersfield in Kern County. During the early 1990's, high GWSS populations were associated primarily with citrus along the coast. Recently, this sharpshooter has become locally abundant further inland (Riverside and San Diego Counties) where it has been implicated as the primary vector in a Pierce's Disease epidemic in the Temecula Valley.

Potential Range in California

There is currently no methodology available to predict the potential range of GWSS in California. Methodology development has been identified as a research priority by the California Department of Food and Agriculture (CDFA) Glassy-Winged Sharpshooter/Pierce's Disease Task Force. Although the distribution of citrus may be predictive of the sharpshooter's range in the San Joaquin Valley and Southern California. there is the possibility that other widely distributed native plants (such as oaks) may play a significant role in reservoiring GWSS populations along the central and northern coasts and in the Sacramento Valley. Given this possibility, the potential range of this insect may encompass most of the major agricultural production regions of the State. As such. GWSS may represent a significant statewide threat to grape, peach and almond growers because 'of its ability to effectively vector various strains of the bacterium *Xylella fastidiosa*.

Survey Area

The crops listed above are grown commercially in many California counties in which GWSS has not been detected (Appendix C). Limited infestations occur in two commercial production counties. Kern and Santa Barbara. Some highly urbanized counties are adjacent to commercial production areas and might serve as introduction sites for GWSS, such as Marin and San Francisco. The following 43 counties are recommended for survey:

Alameda, Amador, Butte, Calaveras, Colusa, Contra Costa: El Dorado, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lake, Madera, Marin. Mariposa. Mendocino, Merced, Monterey, Napa, Nevada, Placer, Sacramento, San Benito. San Francisco, San Joaquin, San Luis Obispo, San Mateo. Santa Barbara, Santa Clara. Santa Cruz, Shasta, Solano, Sonoma. Stanislaus, Suttrr, Tehama. Trinity, Tulare, Tuolumne, Yolo, and Yuba (Appendix C).

[1] Recent changes are indicated with double underlining.

Available Survey Methods

Visual Searches - Visual searches can be conducted to find adults. nymphs, nymphal cast skins, eggmasses, and egg scars. When searching for active life stages on individual plants, certain behavioral characteristics of the sharpshooter can be used to increase the probability'of detection. Important traits to be considered are: 1) adults and. older nymphs are primarily stem feeders; 2) new flush growth is preferred; and 3) on trees, the insects. usually select shoots that are growing upward (vertically oriented as opposed to horizontal. twigs). GWSS selects southern exposures.

Host searches should be enhanced by using nets (aerial and sweep) and beating sheets. The effectiveness of these collection devices is largely dependent on the types and density of life stages present. When populations are large and well established. adults are often the easiest life stage to detect because they are highly visible when flying around or between their host plants. Flight activity is most pronounced during the late morning and afternoon hours. therefore. surveys should be conducted during the warmer parts of the day. if practical. Correct timing is particularly critical if adult numbers are low. -At low densities and during cooler times of the day. nets may be used to agitate foliage causing cryptic adults to take flight. Either aerial or sweep nets can be used to capture adults, but the former are often more effective since they are lighter, more maneuverable, have larger openings, and are often equipped with longer handles, Retrieval of specimens from aerial nets is also more efficient, as captured individuals are always visible. Sweep nets are constructed of sturdy durable materials and designed to quickly sample a wide variety of short (generally four feet or less in height), woody. and herbaceous plants. such as those found in nurseries. However, care must be exercised when using these nets so that certain tender plants are not injured. Beating sheets are also an excellent tool because they: 1) are more effective (as compared to a sweep net) in direct sampling of highly suspect plant parts, such as erect flush growth; and 3) permit the rapid discovery of nymphs and their cast skins. They also help facilitate the capture of nymphs because unlike adults: which often fly before or immediately after landing, the immatures often will remain on the sheet long enough to allow collection. Beating sheets are most effective early in the day when temperatures are low and the insects are less active..

Traps - Yellow sticky panels measuring a minimum of 5" X 9" are the trap of choice for GWSS. Of the commercially available ones. unbaited Pherocon AM traps are the best suited for survey, as they are relatively inexpensive, have a moderately large sticky surface, and can be easily deployed in a wide variety of hosts. either by hand or with the use of a trapping'pole.. GWSS has also occasionally been recovered from the sticky inserts in Jackson traps,. indicating that other trap types containing sticky components may yield specimens.

H o s t s

The GWSS feeds on and ovipbsits in a wide variety of plants. The hosts listed in __ Appendix 'A are a compilation 'of plant species with which GWSS has been associated in

California and the southeastern United States. Undoubtedly, this list will continue to expand.

Citrus is a favored host in Southern California but very high sharpshooter populations have also been observed on avocado, crape myrtle, and several species of woody ornamentals. Other favored introduced plants include Eucalyptus and various members of the rose and mallow plant families. Native hosts include both evergreen and deciduous oaks, sycamore and laurel sumac.

Seasonality

GWSS has two generations per year. Studies in Southern California have shown that, although adults are present and must feed throughout the year, egg laying activities are either absent or reduced to very low levels during the winter months of December, January, and February. During this same period, the numbers of over-wintering adults also decreases. Egg laying resumes in late February and continues **through** May. The first generation completes development from late May to late August. Adults from this generation lay egg masses from mid-June through late September, which give rise to over-wintering adults. This developmental pattern results in overlapping generations in which each life stage reaches its highest levels at some time from-June through October. Conducting surveys during this five-month period should optimize the probability of detection of established populations in urban/residential and cropland environments. In the case of mobile hosts (such as nursery stock), the timing of surveys may be dictated by the shipment schedules.

Sites at Risk Due to Natural Dispersal

There are two natural dispersal pathways by which the GWSS could expand its range northward into non-infested areas of the state. One is along the coast from Santa Barbara County.: The other is through the San Joaquin Valley from the infested area in southern Kern County.

Recommendation: Systematic grid searches should be conducted in these two counties to accurately determine the limits of the current infestations. Although the sharpshooter has been known from Santa Barbara County for a number of years, it appears to be restricted to the urbanized coastal areas south of the Santa Ynez Mountains, between Goleta and Carpenteria. Transect surveys need to be conducted along the 101 corridor from Goleta north to Buellton, along Highway i to Lompoc, and along Highway 154 from Santa Barbara into the Santa Ynez Valley. Five sites per lineal mile should be surveyed along these routes utilizing both visual searches and yellow panel traps. Besides providing useful distributional information, these surveys may also provide some insights as to the suitability of native coastal plant species as hosts for GWSS. In addition to these transects, systematic visual grid surveys of dooryards and public use areas (parks, greenways, etc.) should be undertaken in the cities of Santa Ynez. Solvang, Lompoc, Vandenberg Village, Orcutt, and Santa Maria. In southern Kern County, transect surveys should be conducted from the Grapevine area north to Arvin, in citrus pianrings along Highway 166 southeast of Maricopa, and in the citrus belt which extends along the western foothills of the Sierras from northern Kern County into Southern Fresno County. The western and northern boundaries of the Kern County infestation also

need to be more accurately delimited. This will require systematic grid searches of each of the one-mile sections lying entirely or partially within the incorporated areas of Bakersfield and Oildale.

Sites at Risk Due to Artificial Dispersal

Nurseries

Out-of-state nursery stock, infested with GWSS eggs, has been implicated as the possible source of the original California infestation. Egg masses have also been found on nursery stock grown in infested areas of the State. This indicates that nursery stock represents a viable pathway for introduction and intrastate movement of this insect pest.

Recommendation: Nurseries, which could potentially receive and disseminate GWSS infested plants into non-infested counties of California, should be identified and surveyed.

Nursery Surveys - The following protocols represent a compilation of a series of observations made during a recent survey of a limited number of wholesale nurseries in Southern California by California Department of Food and Agriculture entomologists and guidelines provided by University of California research scientists.

1. Adult surveys. Sweep nets should always be used to augment the visual examination of plant materials. It is advisable to survey all stock in the nurseries by this method, since adults may be widely scattered and resting on non-host plants. Sweeping is most likely to capture adults and/or nymphs when temperatures are below 60°F. As temperatures warm, adults are less likely to be caught by sweeping but this activity will cause adults to fly, making them easier to see. Adults can also be stirred up by agitating foliage with net handles or lightly jarring pots or containers. Adults are usually difficult to net in flight, so they should be followed to their landing site, knocked into either a sweep or aerial net. and then collected into alcohol.

2 Egg mass and nymphal surveys. These are best restricted to known ovipositional hosts within the nursery (Attachment A). Old egg scars are the easiest to detect since egg deposition sites are visible on both leaf surfaces. This is not always the case with newly laid eggs, as the raised surface blister (and characteristic waxy covering) is only visible on the undersides of the leaves. Consequently, a representative sample of leaves should be turned over and examined for egg masses. Backlighting against a sunny sky will also help in finding egg masses. Nymphs, and their cast skins, are best detected by using a beating sheet. Beating sheets permit the selective sampling of smaller, rapidly growing plants or regions of vigorous upright growth (such as the terminals and suckers) on large shrubs and trees.

3. Yellow sticky traps have also been found useful in nurseries and have occasionally detected the presence of sharpshooters when other survey techniques have failed. Based on limited observations in Southern California, traps can be

used to successfully monitor GWSS populations as long as they are strategically and properly placed (i.e., in areas containing a variety of known feeding hosts). Yellow sticky traps should be placed at about canopy height at a density of not less than one per one-half acre. If multiple canopies are present, then traps should be used to detect insects in each of the canopies present. Traps should be placed well within the nursery and never in the windrow or at the fence (property) line. Traps deployed in individual host plants should be positioned in a highly visible position (not hidden in the foliage), and placed in or near an are? of vigorous upright growth on the warmest side of the tree. If plants are short, Japanese beetle rods, or wooden stakes or poles can be used to position traps at the proper height. Traps should be serviced every two weeks and remain in place for a minimum of ten (10) weeks.

4. Survey crews should have at least one person who can recognize a wide variety of plants and is familiar with the common and botanical names of ornamental plants. This is important because many nurseries do not label their stock or have maps showing where plant species are distributed on the property.

Urban/Residential Areas

Since the GWSS has been present in Southern California for at least a decade. it is possible that it has already been introduced into residential areas within the survey area Regions most at risk would be new (10 years old or less) housing and commercial developments.

Recommendation: After removal from the field. all insect detection traps within the survey area should be routinely screened for GWSS. This includes all traps deployed for detection of exotic pests in urban areas including the sticky inserts from Jackson traps, Pherocon AM traps, ChamP traps and Japanese beetle traps.

Recommendation: AM traps should be "piggybacked" on the Mediterranean fruit fly (Medfly) trap sites in the geographic area identified above. Traps should be placed at the same per-sauare-mile densitv as the Medfly traps. up to a densitv of 5 AM traps per square mile. Multiple host sites with citrus and other seasonal pome and stone fruits would be targeted. Traps would be placed in citrus, whenever possible, left on-site for six weeks, and follow the Medfly Jackson traps throughout the trapping season.

Recommendation: Visual surveys for all life stages should be conducted in all larger ornamental plantings containing GWSS hosts. Areas to be examined would include landscaped median strips, border plantings along major urban thoroughfares, rights-of-way along major state highways and interstates, and in parks, industrial parks, golf courses, and cemeteries.

Cropland

• If the GWSS is going to invade croplands, the most probable routes will be: (1) via spread from nearby infested urban areas; or (2) by the use of egg-infested stock to establish new citrus plantings. Also since citrus groves are capable of generating large numbers of individuals, and sustaining sharpshooter populations throughout the year.

such plantings should be targeted for detection of GWSS throughout the major agricultural production areas of the state.

Recommendation: Commercial crop survey shall be prioritized as follows: (1) ail commercial plantings of *Citrus* spp., *Vitis* and *Prunus* spp. which fall entirely or partially within a ½ mile radius of residential areas or other known GWSS reservoirs (i.e., riparian habitats and/or oak woodlands; (2) all new citrus plantings; and (3) ail the remaining citrus groves in each county.

Survey Guidelines-Priorities 1 and 2: Visual searches for all life stages shall be conducted throughout each block where the borders of the block are within the above radius. Yellow panel traps may be used to augment visual searches. If traps are utilized. they should be deployed at a minimum density of one per Trap) acres r o m April through October. relocating the trap into a new 20-acre subquadrant every six weeks. Service every two to three weeks. Use a new trap at the time of each relocation; replace traps as needed. Traps deployed in *Citrus* and *Prunus* should be placed in the upper canopy near flush foliage in exposed positions (not inside the foliage). Smaller rapidly growing trees inter-planted within groves of mature trees have also been observed with high numbers of adult GWSS and may represent the best sires for visual inspections or trap deployment. Observations in the southeastern U. S. also indicate that peach trees in a weakened condition or even single limbs dying from severe scale infestations or those prematurely defoliated due to other natural causes are particularly attractive and often ac: as a congregation site for large numbers of adults. Deployment of traps in or near stressed trees may enhance the probability of detection. In vineyards, poles/stakes should be used to suspend yellow panel traps just above the grape canopy. Deployment in perimeter rows or along heavily traveled routes within the planting should be avoided

Priority 3: Deploy traps at a minimum density of one per 240 acres using the above guidelines for citrus. Trap from April through October. reiocatine the trap into a new 40-acre subauadrant everv six weeks. Service everv two to three weeks. Use a new trao at the time of each relocation: replace traps as needed.

- Other tree crops should be surveyed using "in-place" traps in the same manner as those used for detection of exotic pests in rural settings.

Recommendation: All traps used by county. university extension and research personnel, private contractors and consultants (Pest Control Advisors). and growers for monitoring, controlling or certification of freedom from. orchard. vineyard. and ornamental crop pests should be screened for adult sharpshooters. Traps which Should be inspected include, but are not restricted to, those used for apple maggot, walnut husk fly, olive fruit fly, Mediterranean fruit fly, Oriental fruit moth. peach twig bbrer. and codling moth. Physical devices such as "hopper tape" used to control grape and variegated leafhoppers should also be examined especially when deployed in vineyards bordering potential reservoir habitats such as citrus groves. housing developments, etc.

Hitchhiking Adults

It has been suggested that adult GWSS may be transported to winery locations by hitchhiking on gondolas of harvested grapes.

Recommendation: Survey high-risk locations and their immediate environs. High risk wineries are those which: (1) receive either large volumes of grapes from a variety of locations within a single county or from several counties; (2) receive grapes from within or near locations known to be infested by GWSS; and (3) allow unprocessed loads of grapes harvested at night to be present at the crushing location until midday of the following day. During grape harvest, such locations should be continuously trapped and visually inspected at least once.

Specimen Collection and Identification

All glassy-winged sharpshooter suspects shall be submitted to the Plant Pest Diagnostics Center in Sacramento or submitted to the local county agricultural commissioner for submission to the Center for confirmation. This is particularly important for specimens which represent new distributional and host records and those which will be used as the basis for reguiatory actions.

Specimen Collection and Submission of Samules – Leaves with suspect egg **masses** and/or egg scars should be placed in sealed plastic bags. Free-living **adults and nymphs** should be killed by placing them in vials containing 70% alcohol. These containers should have tight fitting corks or screw top lids to prevent/minimize the loss of specimens or preservative during transit to the laboratory. Suspect adults on sticky traps can be submitted by either sending the entire trap or by cutting out and sending the portion of the trap containing the suspect sharpshooter. Prior to shipment yellow panel traps should be reversed so that the sticky surfaces are on the inside and a rubber band placed around the outside to hold the two halves in position. Care should be taken to insure that the sticky surfaces are not in contact. Do not submit traps covered with clear plastic. Sticky traps should be placed in sealed plastic bag(s) before packaging, 'Cut-outs" should be placed in dry plastic vials and sized to fit tightly inside so that neither the specimen nor the "stickem" comes in contact with the inner surface of the container. Use a Standard Form 65-020, "Pest and Damage Record" (PDR). when sending specimens for identification.

APPENDIX B

Monitoring for GWSS in Commercial Nurseries

Guidelines prepared by

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1. Be familiar with the basic identification of Glassy-Winged Sharpshooters. You must be able to recognize egg masses, nymphs, and adults. Identification references can be obtained from the:

a. Online Media Kit from the University of California, Division of Natural Resources internet site (http://danrcs.ucdavis.edu/Special/gwss/default.shtml). also available from, UC County Extension Offices, County Agriculture Commissioner's Offices: and California Association of Nurserymen

b. California Department of Food and Agriculture intemet site (http://www.cdfa.ca.gov/pests/Glassy%20Winged%20Sharpshooter.html)

c. California Department of Food and Agriculture publication, California Plant Pest,& Disease Report, Volume IS, Nos. 3-4, June-September, 1999

d. Your local University of California, Cooperative Extension Farm Advisor.

2. **Know where** you **are.** If you are in an urban environment in Southern California or adjacent to citrus groves (in San Diego, Imperial, Riverside, Orange, Los Angeles, San Bernardino, Ventura, Santa Barbara, and Kern Counties, as of January 20, 2000), you should assume your inventory has a high probability of carrying glassy-winged sharpshooters and active monitoring and control procedures are warranted. This is especially true if your property is near or adjacent to housing developments, parks. agricultural, or natural areas planted with shrubs and trees. Glassy-winged sharpshooters are strong flyers; they can easily disperse into nurseries from nearby trees and shrubs.

3. **Detection of Glassy-Winged Sharpshooters.** Currently, there are no satisfactory sharpshooter monitoring methods that are effective AND are easily adaptable for grower use. The following series of detection methods are suggested to monitor glassy-winged sharpshooters in commercial nurseries:

a. **Standard yellow sticky card insect monitoring traps:** Standard yellow stick! cards should be placed at approximately canopy height at a density of not less

than 1 card per one-half acre. If multiple plant canopies are present, then multiple cards should be used to detect insects from each of the canopies present. Cards should be checked for sharpshooters no less than once per week. Sticky cards will only detect adult sharpshooters at relatively high population densities. Lack of detection on sticky cards DOES NOT necessarily mean that sharpshooters are not present, but trapped adults are solid evidence of a problem. Sticky card will not detect sharpshooters in the juvenile or egg stages nor are they likely to detect adult sharpshooters at low densities.

b. **Beat sheets, beat trays, or** sweep nets: When the ambient temperature is cool (below approximately 60°F), beat or sweep sampling may be an effective way to detect adult and juvenile sharpshooters. **For beat sampling,** place a white. two-foot by two-foot sheet of fabric, wood, stiff paper or other suitable material underneath the vegetation canopy to be sampled. Strike or shake vigorously the foliage overhanging the white sheet (be careful not to damage the foliage). Glassy-winged sharpshooters will fall from the foliage and can be easily seen on the white sheet. Beat sampling will not detect sharpshooters in the egg stage. nor will it be effective at warmer temperatures. At warmer temperatures. the insects will either jump or fly away (and not fall onto the detection sheer) when disturbed. **For sweep sampling:** Simply sweep insect nets through foliage and examine bag contents. Detection of sharpshooters by sweep sampling may also be performed successfully during warmer (greater than 600F) periods of time

c. Visual Inspections: Visual inspection of foliage is perhaps the best method for detecting all stages of the sharpshooter. Carefully examine leaf petioles. twigs and small branches for the presence of nymph and adult sharpshooters. Be aware that the insects will try and hide from observation by moving to the far side of any available stem. Once scouts learn to recognize the characteristics. egg masses can easily be detected by visually inspecting the underside of leaves. Leaves should be backlit against a sunny sky to properly detect egg masses. All materials scheduled for transport out of Southern California should be closely examined.

4. **Disinfestation of Glassy-Winged Sharpshooter.** Upon detection reasonable efforts should be made to eradicate all stases of the glassy-winged sharpshooter on plant material scheduled to be shipped to areas north of Santa Barbara, Ventura. Los Angeles, Kern, and San Bernardino Counties. Three strategies should be considered for treating plant material infested with sharpshooters:

a. treating for active adult and juvenile infestations,

b. treating for juvenile infestations arising from egg hatch at point of destination.

c. treating for viable egg masses prior to shipment

Treating for Active Adult and Juvenile Infestations:

As adults and juveniles may infest nursery material at any time, right up to the period of shipment, treatments for these stages of the insect should be performed as near to the time of shipping as is reasonably possible. Any registered insecticide suitable for leafhopper control may be used (Table 1). Treatments involving non-systemic materials should be thoroughly applied with a reasonable expectation that contact with the insect is made. Such treatments should be performed immediately prior to shipment. Following treatment, plants should be loaded (as rapidly as re-entry requirements allow) and shipped to prevent post-treatment infestation.

Table 1. Compounds Registered for Leafhopper Control in Nurseries, Trees, Greenhouses and Ornamental Plantings

For Nurseries		For Trees	
Trade Name	Manufacturer	Trade Name	Manufacturer
Astro	FMC	Crymax Bioinsecticide BT	Ecogen
Azatin XL	Olympic	Malathion	Gowan
Decathlon 20WP	Olympic	Botanipard 22 WP	Mycotech
Deltagard GC 5SC	Agrevo		
Diazinon 50WP[1]	Novartis		
Dursban Pro	Dow	For Greenhouses and Ornamentals	
Mavrik Aquaflow	Wellmark	Cinnacure	Proguard
Merit 75WP	Bayer	Demon WP	Zeneca
Orthene 75S, T/O	Valent	Thiodan 3EC	FMC
Pounce 3EC	FMC	Endeaver	Novartis
PT 1100, Aerosol	Whitmire	All Pro Insecticidal Soap	SureCo
Duraguard ME	Whitmire	Knox Out 2FM	Elf Atochem N. Amer
Sevin SL	Rhone-Poulenc	Marathon 60WP	Olympic
Talstar NF'	FMC	Nicotine Smoker	Plant Products Corp
Tame 2.4 EC[1]	Valent	Plantfume 103[1]	Plant Products Corp.
Tempo 2	Bayer	Pyrellin EC	Webb Wright Corp.
X-clude PT 1600A	Whitmire		

[1] Restricted Use

Treatments involving systemic insecticides must allow sufficient time for the distribution of the insecticide throughout the plant. Table 2 lists insecticides that have been shown to be effective at controlling sharpshooters. Note, that several days to weeks (depending on compound) after treatment applications may be required to allow materials to distribute throughout the plant and achieve effective control. For any compound used, follow all label directions carefully.

Table 2. Insecticides Shown to be Effective for Glass-winged Sharpshooter Control (tested under preenhouse conditions)

Trade name	Common name	Class of Insecticide	Manufacturer
Merit	Imidacloprid	Neonicotinoid	Bayer
Tame 2.4 EC	Fenpropathrin	Pyrethroid	Valent
Orthene 75S[1]	Acephate	Organophosphate	Valent
'Tame + Orthene[1]	Fenpropathrin + acephate	pyrethroid + organophosphate	Valent
Metasystox R2[1,2]	oxydemeton-methyl	organophospahte	Gowan

[1] May cause phytotoxicity

[2] Soil injection only

Treating for Juvenile Infestations Arising from Egg Hatch at the Point of Destination

If sharpshooter eggs masses are detected, plants should be treated with a systemic or long-acting insecticide so that newly hatched and feeding juvenile sharpshooters are killed. Insecticides shown in Table 2 are appropriate for this use. Again, from several days to weeks after the application has been made may be required for effective control. For any compound utilized. follow all label directions carefully.

Treating for Viable Egg Masses prior to shipping

Currently, there are no registered insecticides that have been demonstrated to kill the egg masses of glassy-winged sharpshooters. Studies are currently underway at the University of California to determine the efficacy of various insecticides against sharpshooter egg masses. As additional information is developed. it will be released. Direct treatments of egg masses will reduce the need for systemic applications of materials to control juveniles emerging from egg masses at the-destination point of the shipment.

Warning on the Use of **Chemicals**

Pesticides are poisonous. Always read and carefully follow all precautions and safety recommendations printed on the container label. Confine chemicals to the property being treated. Never use chemicals in a manner that will result in runoff into storm or sewer drains, which will contaminate water supplies or natural waterways.

Dispose of empty containers carefully. Follow label instructions for disposal and never reuse containers. Make sure children and animals cannot reach empty containers. Do not pour unused or excess chemicals down the sink or toilet.

Consult your county agricultural commissioner for correct ways to dispose of excess pesticides. Never burn pesticide containers.

No endorsement of named or illustrated products is intended, nor is criticism implied of similar products that are not mentioned or illustrated.

Attachment 3

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PIERCE'S DISEASE CONTROL PROGRAM STATUTES

Food and Agricultural Code

6045.

(a) The Legislature hereby finds and declares that the plant killing bacterium, *Xylella fastidiosa* and the resulting pathogen, Pierce's disease, and its vectors present a clear and present danger to California's fifty billion dollar grape industry, as well as to many other commodities and plant life.

(b) There exists an ongoing need for at least fifteen million dollars ($15,000,000) annually in research and programs to combat Pierce's disease and its vectors in California.

6046.

(a) There is hereby created in the Department of Food and Agriculture the Pierce's Disease Control Program.

(b) The Governor shall appoint a statewide coordinator, and the secretary shall provide an appropriate level of support staffing and logistical support for combating Pierce's disease and its vectors.

(c)

(1) There is hereby created the Pierce's Disease Management Account in the Food and Agriculture Fund.

(2) The account shall consist of money transferred from the General Fund under subdivision (d) and money made available from federal, industry, and other sources. Money made available from federal, industry, and other sources shall be available for expenditure without regard to fiscal year for the purpose of combating Pierce's disease or its vectors. State general funds to be utilized for research shall only be expended when the secretary has received commitments from nonstate sources for at least a 25-percent match for each state dollar to be expended.

(d)

(1) The sum of six million nine hundred thousand dollars ($6,900,000) is hereby appropriated from the General Fund to the account created by this article in the Department of Food and Agriculture Fund and shall be available for expenditure by the department without regard to fiscal year for the purpose of combating Pierce's disease or its vectors.

(2) It is the intent of the Legislature that a total ofthirteen million eight hundred thousand dollars ($13,800,000) be made available from the General Fund for purposes of providing funding to the program established by subdivision (a). Therefore, it is further the intent of the Legislature, in addition to the appropriation in paragraph (1), to appropriate six million nine hundred thousand dollars ($6,900,000) from the General Fund in the Budget Act of 2000 to the department for the purpose of funding the program established by subdivision (a),

(e) The funds appropriated pursuant to this section to the Food and Agriculture Fund for the purpose of combating Pierce's disease and its vectors shall be used for costs that are incurred by the state or by local entities during and subsequent to the fiscal year of the act that added this section for the purpose of research and other efforts to combat Pierce's disease and its vectors.

(f) Whenever, in any county, funds are allocated by the Department of Food and Agriculture for local assistance regarding Pierce's disease and its vectors, those funds shall be made

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available to a local public entity, or local public entities, designated by that county's board of supervisors.

(g) Funds appropriated for local assistance shall not be allocated to the local public entity until the local public entity creates a Pierce's disease workplan that is approved by the department. Any funds allocated by the department to a designated local public entity or designated local public entity shall be utilized for activities consistent with the local Pierce's disease workplan or other programs or workplans approved by the department. It shall be the responsibility of the designated local public entity to develop and implement the local Pierce's disease workplan. Upon request, the department shall provide consultation to the local public entity regarding its workplan.

(h) The workplan created by the designated local public entity shall include, but is not limited to, all of the following:

(1) In coordination with the department, the development and delivery of producer outreach information and training to local communities, groups, and individuals to organize their involvement with the workplan and to raise awareness regarding Pierce's disease and its vectors.

(2) In coordination with the department, the development and delivery of ongoing training of the designated local public entity's employees in the biology, survey, and treatment of Pierce's disease and its vectors.

(3) The identification within the designated local public entity of a local Pierce's disease coordinator.

(4) The proposed treatment of Pierce's disease and its vectors. Treatment programs shall comply with all applicable laws and regulations and shall be conducted in an environmentally responsible manner.

(5) In coordination with the department, the development and implementation of a data collection system to track and report new infestations of Pierce's disease and its vectors in a manner respectful of property and other rights of those affected.

(6) On an annual basis, while funds appropriated by this section are available for encumbrance, the department shall review the progress of each local public entity's activities regarding Pierce's disease and its vectors and, as needed, make recommendations regarding those activities to the local public entity.

(i) Notwithstanding Section 7550.5 of the Government Code, the department shall report to the Legislature on January 1, 2001, and each January 1 while this section is operative, regarding its expenditures, progress, and ongoing priorities in combating Pierce's disease and its vectors in California.

(j) This article shall become inoperative on January 1, 2006, and as of January 1, 2007, is repealed, unless a later enacted statute that is enacted before January 1, 2007, deletes or extends the dates on which it becomes inoperative and is repealed.

6047. The secretary may establish, maintain, and enforce regulations consistent with the intent of the Legislature as expressed in this article as may be necessary to interpret, clarify, or implement this article. This authority shall be liberally construed to effectuate the intent of this article.

Attachment 4

Santa Cruz County Department of Agriculture Producer Outreach and Training

Completed Efforts:

- March 27, 2000 - A letter was mailed out to retail and wholesale nurseries alerting them to the threat posed by the glassy-winged sharpshooter, and asking for their cooperation in facilitating inspections of plant material from GWSS infested areas. The University of California Cooperative Extension color brochure was included in the mailing.

a April 19, 2000 – The Agricultural Commissioner and his Pest Exclusion deputy met with the Viticulture Association of the Santa Cruz Mountains to provide information about the glassy-winged sharpshooter and the efforts to exclude it from Santa Cruz County. Traps were provided to growers who wished to set traps in their vineyards.

- May 3 1, 2000. – The Pest Exlusion Deputy attended the meeting of the Central Coast Pierce's Disease Task Force in Salinas; Santa Cruz County became a member of that task force.

- June 21, 2000. – The Agricultural Commissioner initiated meetings with affected industry group members to disseminate information relating to the glassy-winged sharpshooter and Pierce's disease. Meetings are scheduled as necessary. (past meeting dates July 25, August 30, and October 16).

- June, 2000. – A color poster was provided to retail and wholesale nurseries.

- July 27, 2000. - An informational mailing and survey form was sent out to wineries regarding the requirements placed on bulk grape shipments.

- August 4, 2000. - The Agricultural Commissioner issued a press release discussing emergency regulations to prevent the spread of the glassy-winged sharpshooter and the formation of the local task force. The public was asked to contact the Department if insects suspected to be the glassy-winged sharpshooter were found.

- August 4, 2000. - A letter was sent out to nurseries explaining the emergency regulations, and emphasizing the importance of holding plant. material for our inspection.

- August 10, 2000. - Based on completion of initial surveys, the Agricultural Commissioner informed the California Department of Food and Agriculture that Santa Cruz County is apparently free from the glassy-winged sharpshooter.

- August 14, 2000 – The Pest Exclusion Deputy attended the Annual Meeting of the Santa Cruz County Winegrowers Association to discuss the status of GWSS activities in the county, and explain the requirements for movement of bulk grapes into the county.

- September 7, 2000 – The Agricultural Commissioner and UC Cooperative Extension sponsored a workshop for growers, nurserymen, and the wine industry. The workshop was conducted by Bay Area IPM Specialist Dr. Lucia Varela, and focused on identification, detection, and life cycle of the glassy-winged sharpshooter.

- September 12-16, 2000. - An informational booth was set up at the Santa Cruz County Fair where informational pamphlets, posters and information regarding glassy-winged sharpshooter were made available to the public.

Ongoing; Efforts:

- Continue to convene informational meetings with members of affected industries as needed.

- Continue to provide informational mailings to affected groups as situation warrants.

- Continue to offer department expertise to professional and other interested parties, make presentations, and be a resource to the media.

- Provide training and educational materials to the local Master Gardeners and work with that group to develop an onsite training program for nursery personnel.

Santa Cruz County Department of Agriculture Employee Training

Completed Efforts:

- Department personnel involved in the Pierce's disease control program have attended a training session which included description, biology, and behavior of the glassy-winged sharpshooter and other vectors of Pierce's disease.

- As new information is received it is forwarded to appropriate staff members.

- Department monthly quarantine meetings have a time slot dedicated to glassy-winged sharpshooter and Pierce's disease.

- Pamphlets and posters have been distributed to staff members.

- CDFA's glassy-winged sharpshooter web site is checked daily. Updates are printed, distributed to staff, and posted in a public place.

Ongoing Efforts:

- As new information is available, personnel will continue to receive updates. New information updates and training will be provided in the format which best addresses the situation including Quarantine Manual excerpts, memos, newspaper/professional articles, informational meetings, CDFA bulletin board excerpts, media clips, etc.

- Glassy-winged sharpshooter updates will continue in the Department's monthly quarantine meetings.

- Personnel will be given training updates each year prior to the start of the incoming shipping season and trapping.

- All new personnel will receive initial training on GWSS identification, behavior, host material (feeding and oviposition), current range, reason for concern, risks associated with the spread of *Xylella fastidiosa* and other *Xylella* strains, and whatever other issues arise or are pertinent.