

Glassy-Winged Sharpshooter and Pierce's Disease

ARS LOCATION:

United States Horticultural Research Laboratory
Subtropical Insects Research Unit
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PRINCIPAL INVESTIGATOR:

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PROJECT OBJECTIVES:

1. Reduce losses in grapevine crops to Pierce's disease and Glassy-winged sharpshooter (GWSS)
2. Area-wide suppression of GWSS

MAJOR ACCOMPLISHMENTS (2007–2010):

RNA interference strategies to suppress leafhoppers in grapevine:

Preliminary results have shown that we can cause RNAi in leafhoppers thereby increasing mortality. Results on grapevine trials using injections demonstrate that dsRNA can be delivered successfully into grapevine and leafhoppers where shown to ingest the molecule. RNAi is the emerging strategy for insect pest management.

RNAi in Leafhoppers (Hemiptera: Cicadellidae):

RNAi in leafhoppers was shown to cause increased mortality. Collaborative efforts with the company, Beeologics, LLC, Miami, FL, have resulted in the development of successful RNAi strategies for treatment of grapevine and citrus to suppress leafhopper pests.

TECHNOLOGY TRANSFER/OUTREACH: N/A

EXTERNAL SUPPORT: N/A

COLLABORATORS:

Nitzan Palid and Eyal Ben-Chanoch, Beeologics, LLC, Miami, FL

RECENT PUBLICATIONS: N/A

