



Efforts to Mitigate, Contain and Prevent Citrus Greening in Belize & the Tri-National Plan

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Fermin Blanco

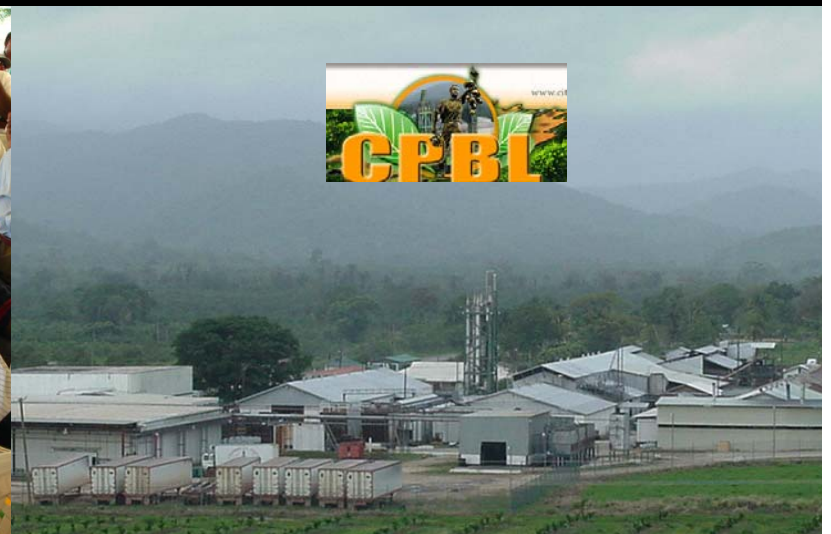




45,000
Citrus Acres

500 growers
10,000 workers

Citrus Products of
Belize Limited
6.5 – 7m cxs / yr



Belize Citrus Growers
Association

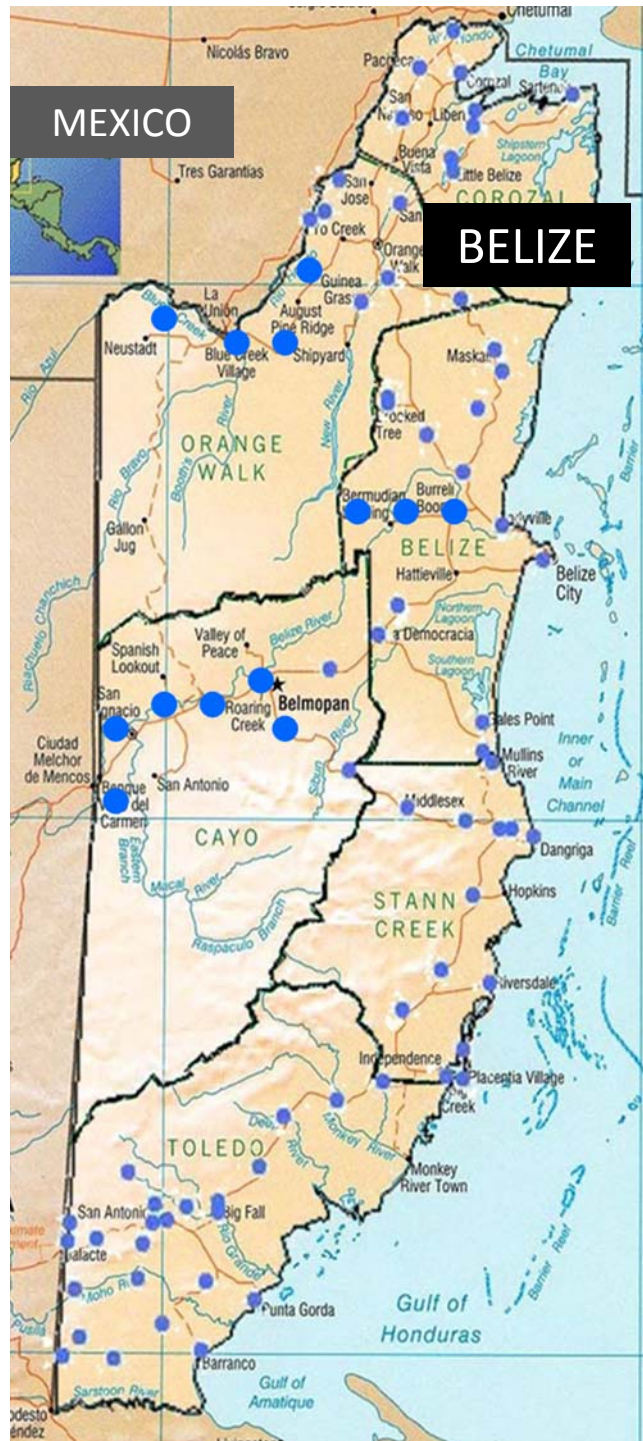


1. Finding Greening-HLB

2. The First Year

3. International Alliances

Finding Greening-HLB



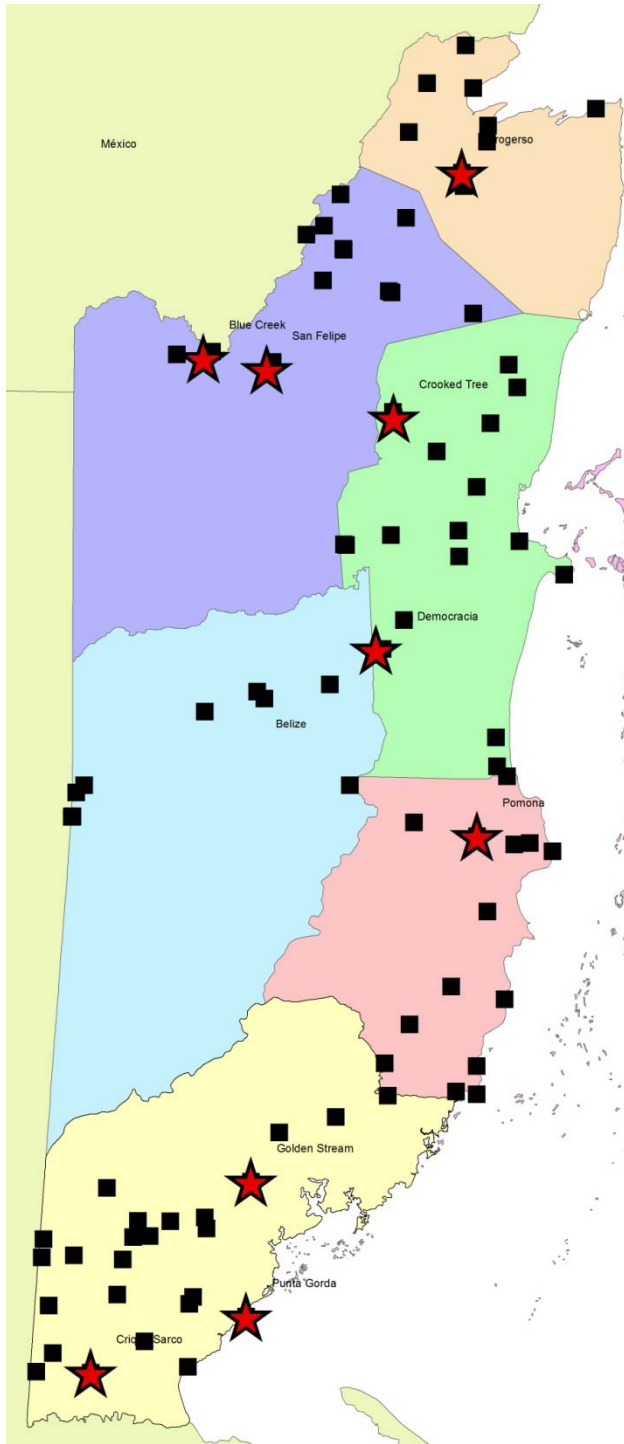
Exotic Disease Surveys

Every 6 Months

CANKER
LEPROSIS
CVC

HLB
Greenin

g



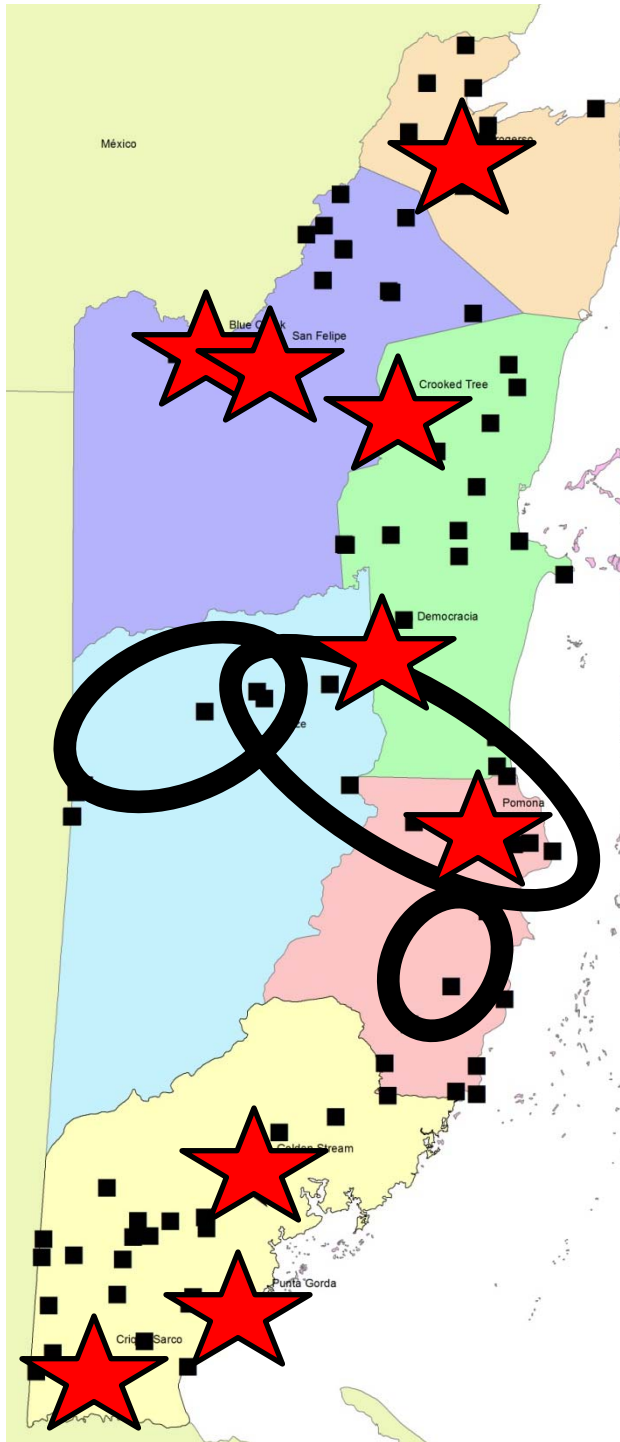
Psyllid Sampling

Jan 2009

HLB +ve



Main citrus production areas



The First Year

Belize Agricultural Health Authority

BELIZE:

STATUTORY INSTRUMENT

NO. 122 OF 2009

122

REGULATIONS made by Belize Agricultural Health Authority with the approval of the Minister responsible for Agriculture in exercise of the powers conferred upon it by sections 35 and 86 of the Belize Agricultural Health Authority Act, Chapter 211 of the Substantive Laws of Belize Revised Edition 2000-2003; and all other powers thereunto it enabling.

CONSIDERING the importance of the citrus industry to Belize;

GIVEN the fact that it has been confirmed that the bacteria (*Candidatus Liberibacter asiaticus*) that causes the devastating citrus disease known as citrus greening or huanglongbing is now present in Belize;

RECOGNIZING the fact that significant spread of this disease occurs due to the movement of plant material that is either infected with the bacterium or carrying the infected psyllid *Diaphorina citri*;

IT IS RESOLVED that immediate measures need to be implemented to restrict the movement of planting material (citrus and other hosts of the disease or vector) (except fruits) until officers of the Belize Agricultural Health Authority advise the

Short title. 1. These Regulations may be cited as the

**BELIZE AGRICULTURAL HEALTH AUTHORITY (NOTIFIABLE PLANT PEST)
(CITRUS GREENING) REGULATIONS, 2009.**

Emergency Legislation

Restricted Movement of Citrus Plants

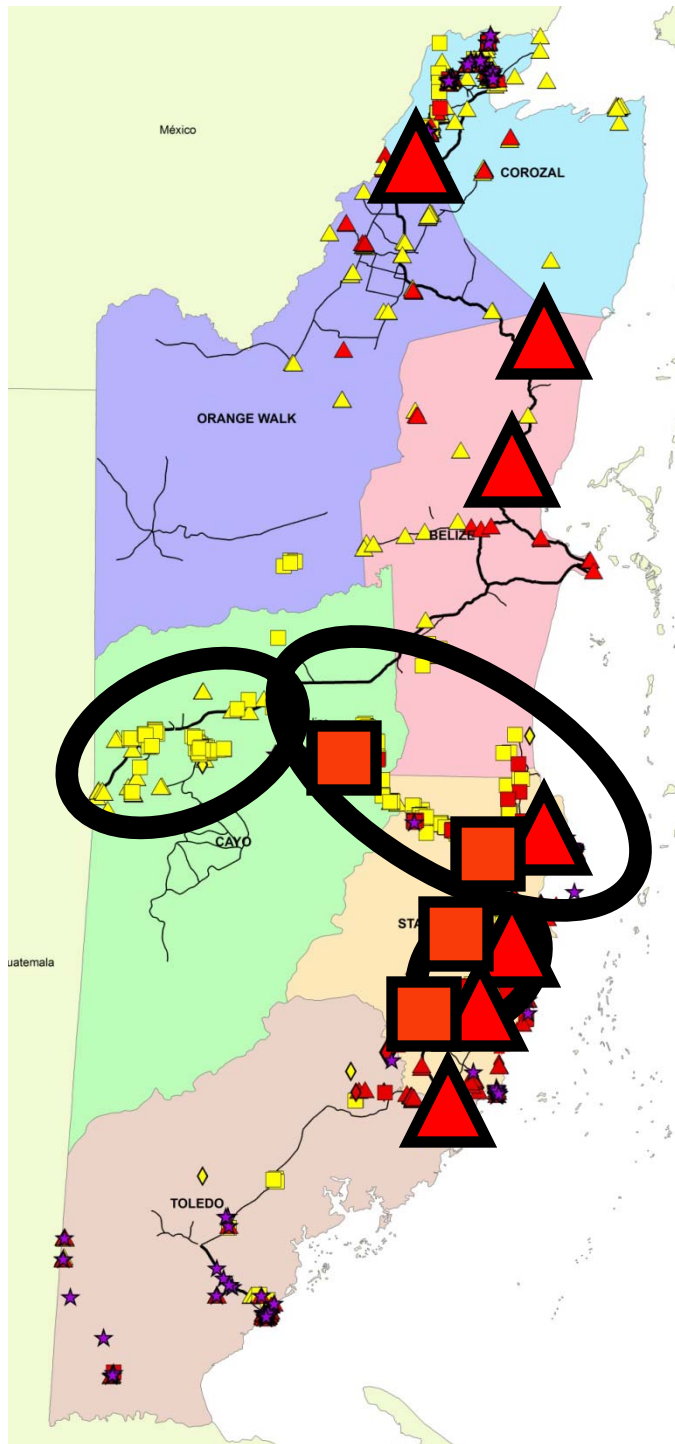


HLB- Diagnostic Capacity Established

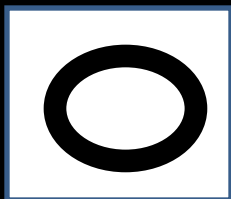
Tests
provided free
to growers

HLB Finds in Belize

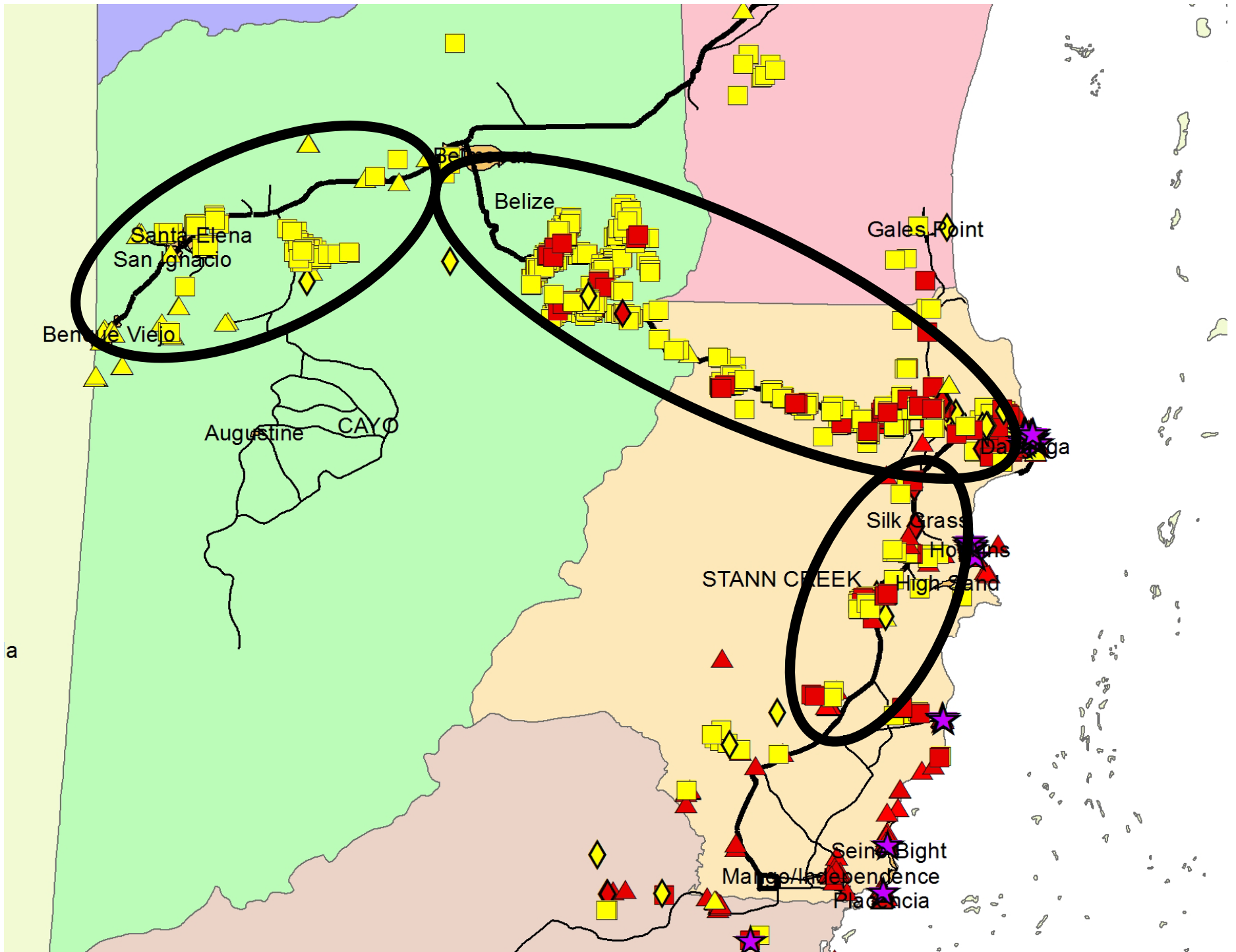
May 2009 to June 2010



	+ve	-ve
Backyard tree	▲	▲
Grove tree	■	■



Main citrus producing areas





Psyllid
Control



Remove infected
Trees



Certified
Plants

Remove infected
Trees



Public
Awareness

Psyllid
Control

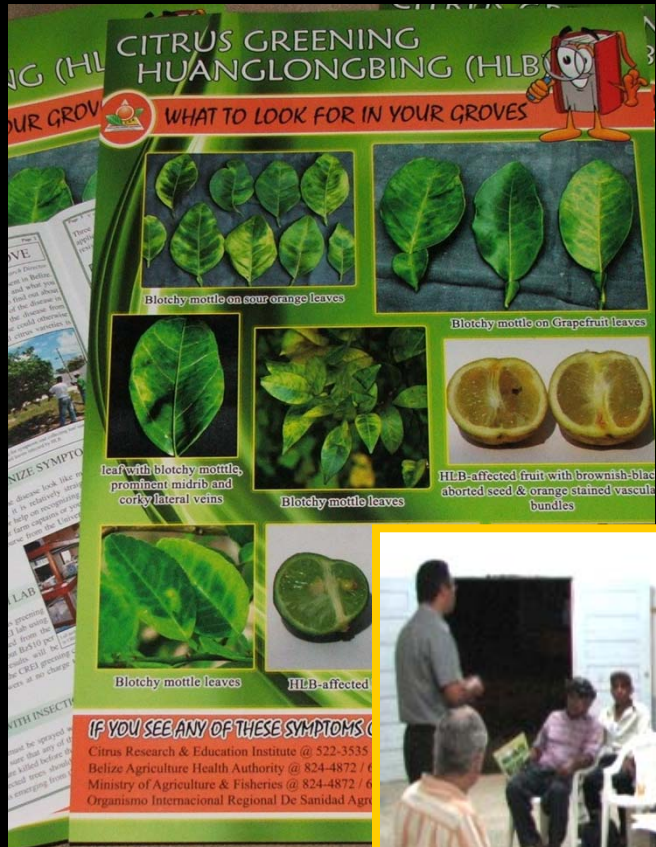


Certified
Plants



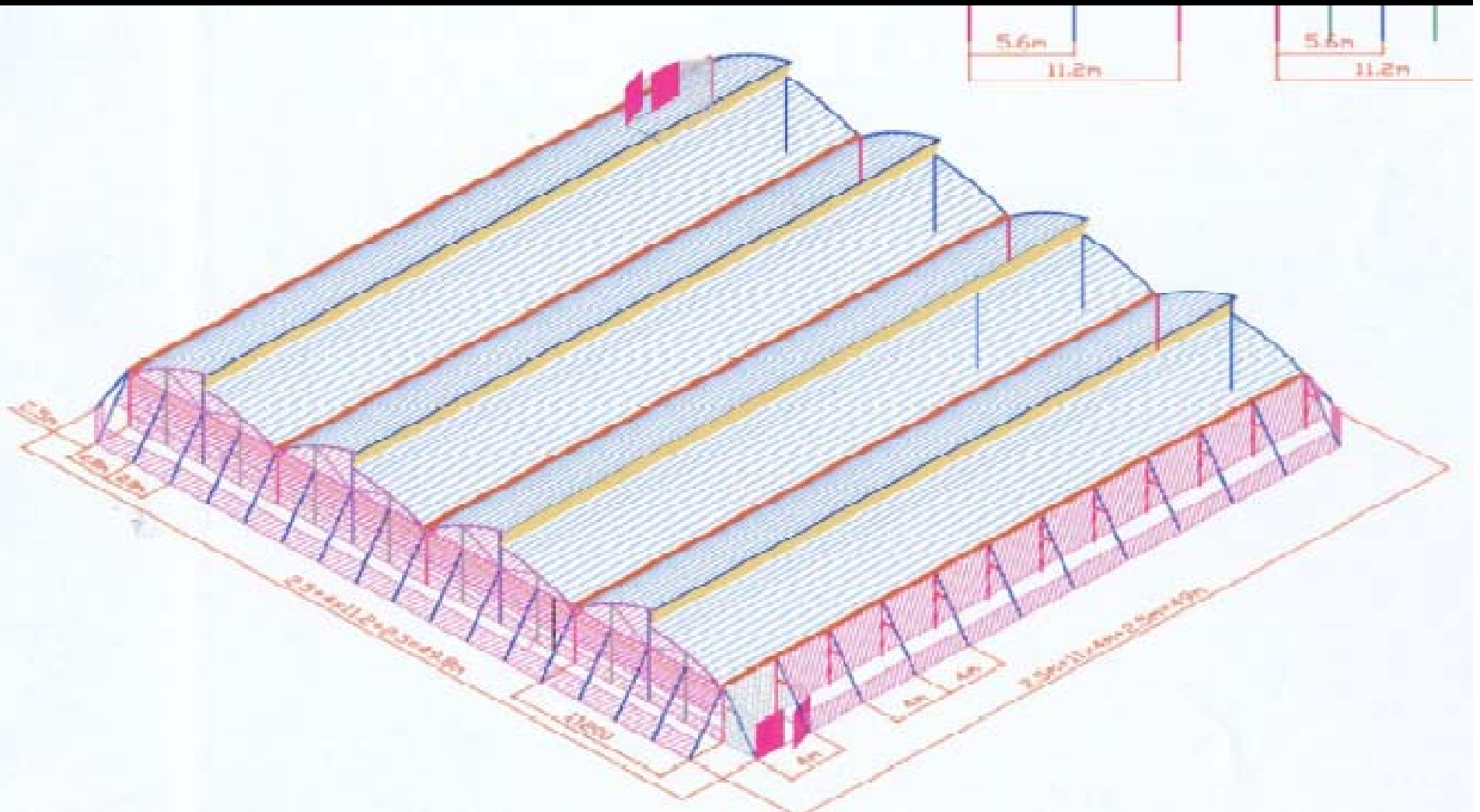
US\$350,000

Public Awareness Campaigns



Legislation

All Nurseries Required to be Screened from February 2010



Budwood Multiplication Blocks





Area Wide Control of ACP

> Biological control:

- Brown Citrus Aphid
- Citrus Leafminer
- Citrus Black Fly
- Scales

> *Tamarixia radatia* in Belize

> Dry season insecticide use

> Targeted release of *T. radiata*

*International
Alliances*

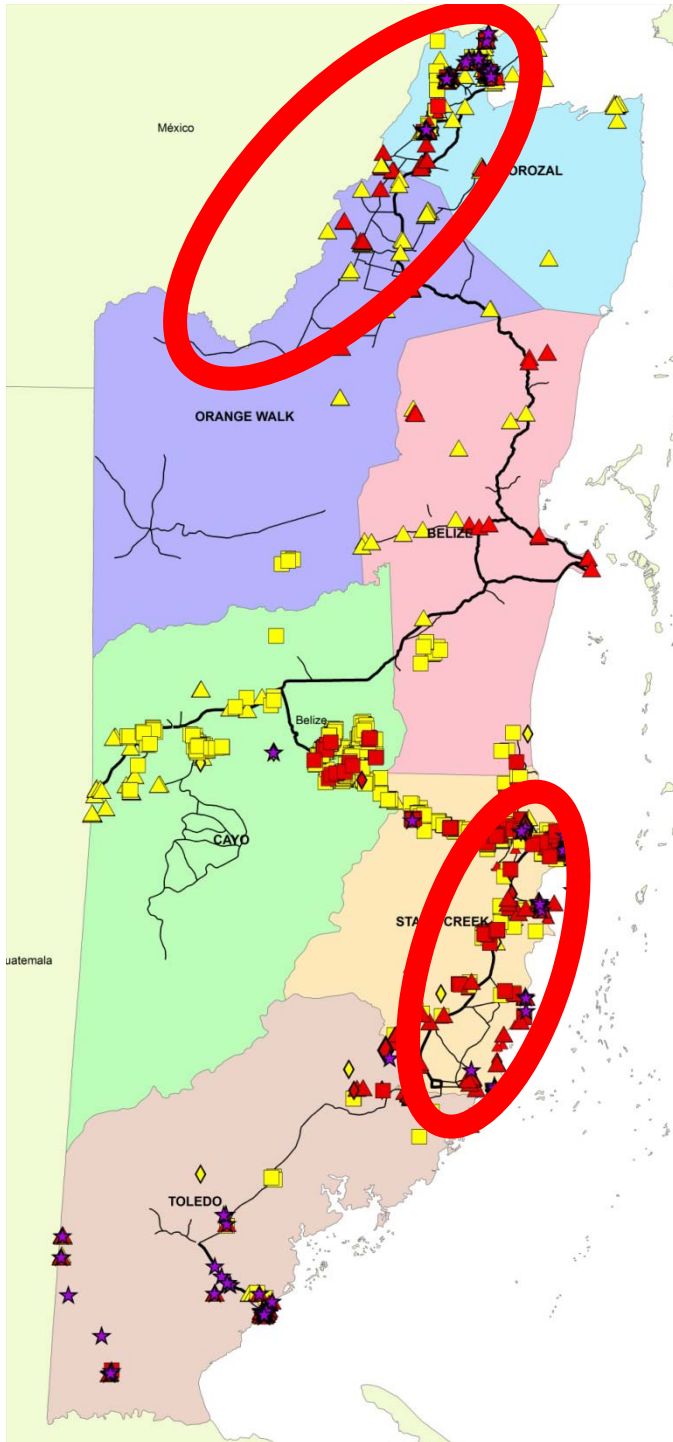


SAGARPA



SECRETARÍA DE AGRICULTURA,
GANADERÍA, DESARROLLO RURAL,
PESCA Y ALIMENTACIÓN

Nation-wide HLB Programme



SAGARPA



SECRETARÍA DE AGRICULTURA,
GANADERÍA, DESARROLLO RURAL,
PESCA Y ALIMENTACIÓN



Tri-national ACP/HLB Program

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USA – Mexico - Belize



United States Department of Agriculture
Animal and Plant Health Inspection Service

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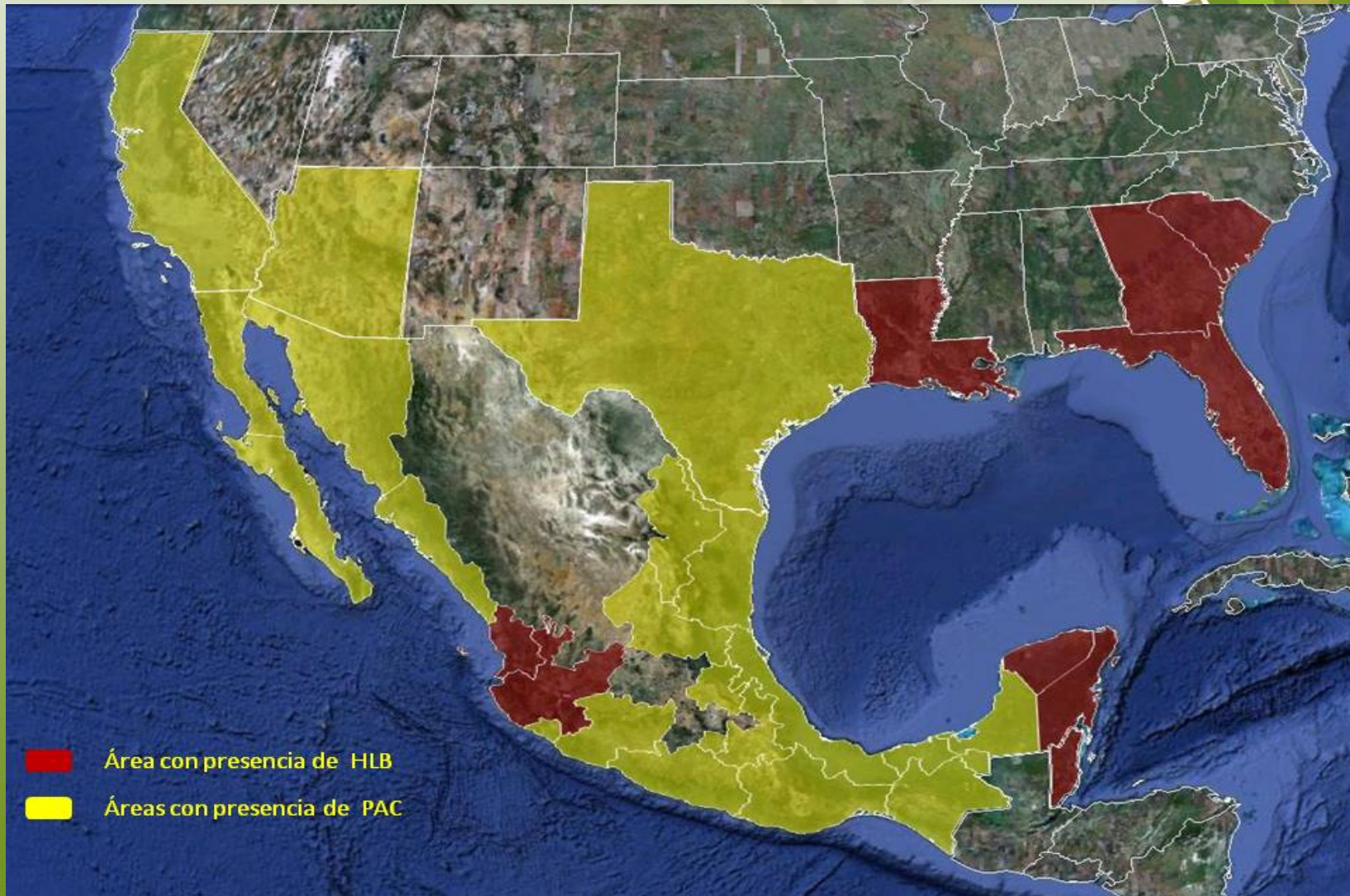


SECRETARÍA DE AGRICULTURA,
GANADERÍA, DESARROLLO RURAL,
PESCA Y ALIMENTACIÓN



USDA is an equal opportunity provider and employer.

Tri-national ACP/HLB Program



Tri-national ACP/HLB Program



Objective

- “Develop and implement a coordinated program in the participating countries against HLB and ACP”

USA – Mexico - Belize



Tri-national ACP/HLB Program



Agreement to:

- > Conduct surveillance for HLB
- > Remove HLB infected trees – if possible
- > Establish laboratories for HLB detection
- > Control ACP
- > Produce nursery stock in a closed structure
- > Conduct training and outreach





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Contain and
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