

# HOLD THE LINE AGAINST HUANGLONGBING.

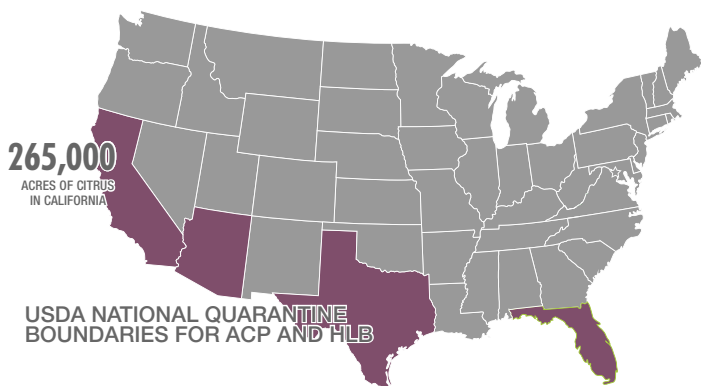
THE TIME HAS COME TO MEET ACP HEAD ON.

The Asian citrus psyllid (ACP) feeds on new leaf growth and is a vector of the bacterium that causes Huanglongbing (HLB). Once a citrus tree is infected, the disease is fatal. At this time there is no known cure for the disease.

## WHAT'S AT STAKE IN CALIFORNIA?¹

59% OF U.S. CITRUS PRODUCTION

\$2.4B OF CITRUS PRODUCTION VALUE



## HLB CAN BE DEVASTATING

HLB is the most devastating citrus disease worldwide and threatens all commercial citrus production.

## IMPACT OF ACP AND HLB¹

FLORIDA LOST

**72%**

OF CITRUS  
PRODUCTION  
SINCE 2006

FLORIDA LOST

**175K**

ACRES SINCE THE  
RISE OF ACP

U.S. LOST

**\$314M**

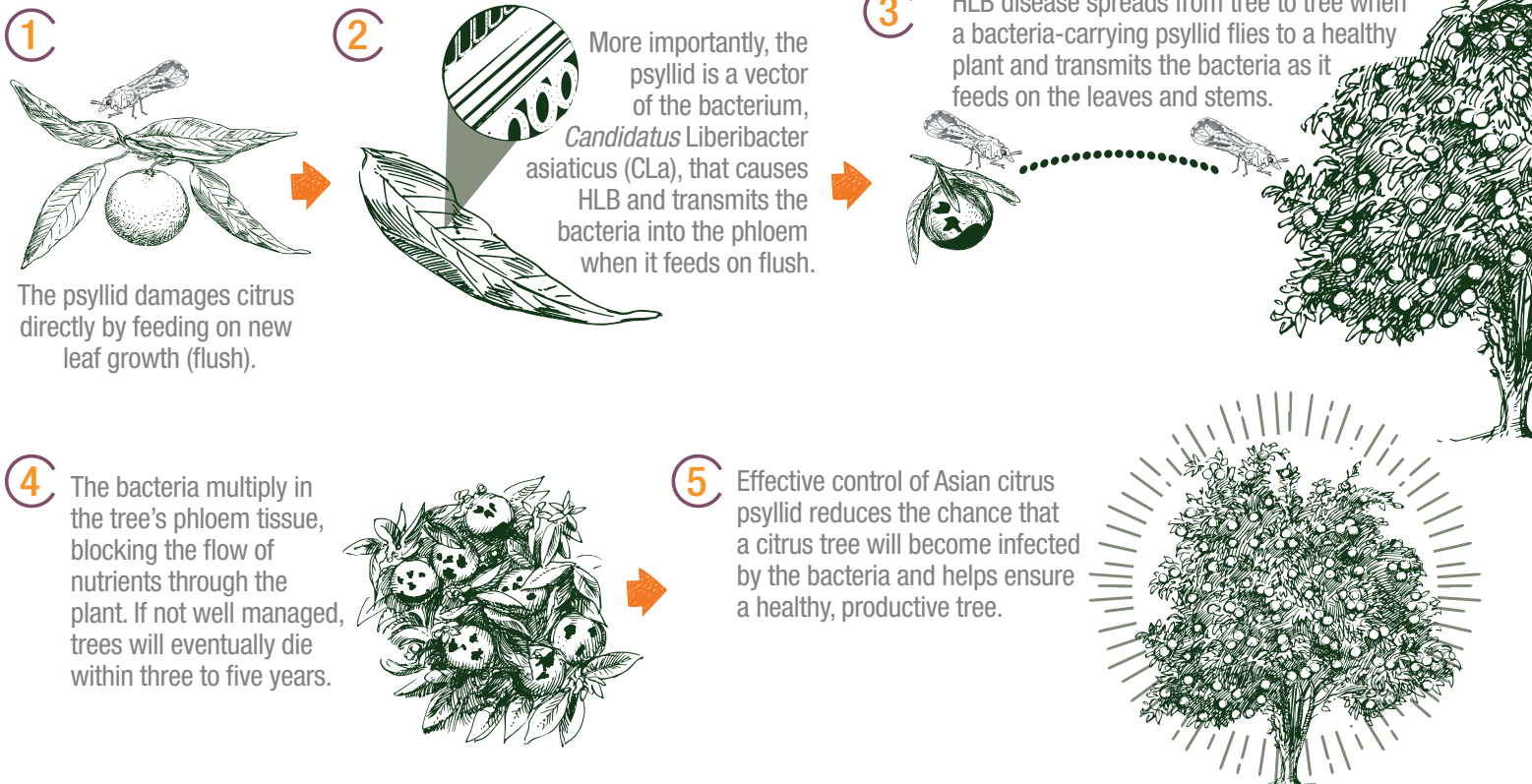
SINCE THE RISE  
OF ACP

U.S. LOST

**5.6M**

METRIC TONS  
OF CITRUS SINCE  
THE RISE OF ACP

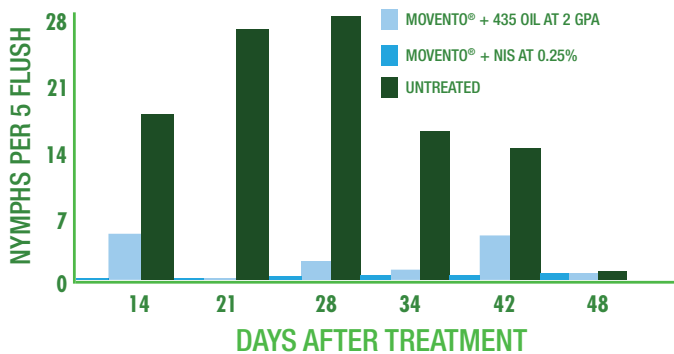
## HOW ACP WORKS IN CITRUS PLANTS²



# ACP AND INSECT MANAGEMENT FROM BAYER

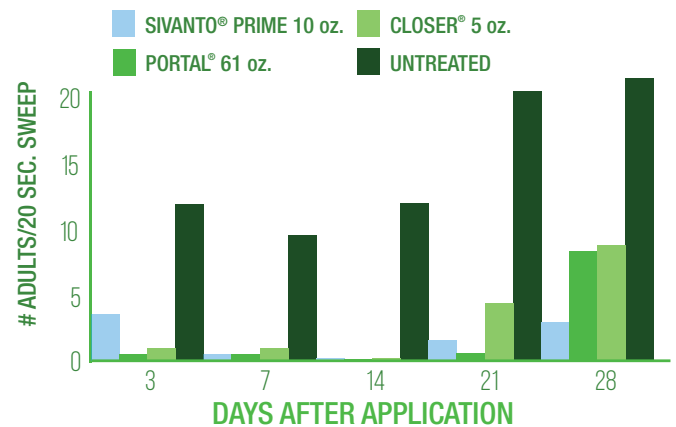
The Bayer portfolio of insecticides that control other citrus pests in CA also provides the foundation of season-long Asian citrus psyllid (ACP) control with multiple modes of action, application times and methods to ensure crop quality and help growers stay ahead of Huanglongbing (HLB).

## MOVENTO® PROVIDES EXCELLENT CONTROL OF ACP NYMPHS



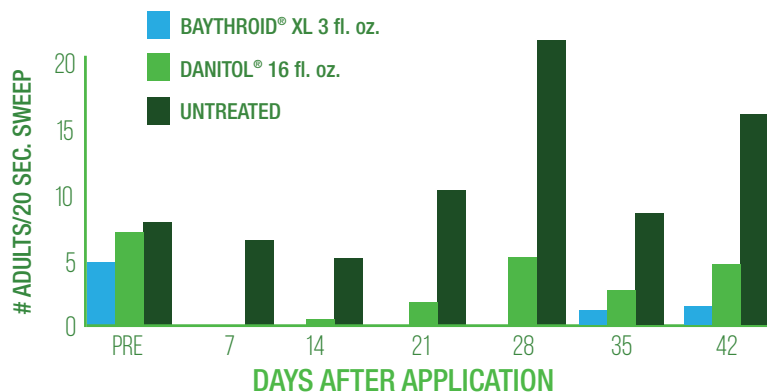
COMMERCIAL AIR BLAST SPRAYER AT 142 GPA.  
STUDY PERFORMED BY ROY MORRIS, BAYER CROPSCIENCE, MATURE VALENCIA ORANGE, FORT MEADE, FL, 2009.

## SIVANTO® PRIME CONTROLS ACP



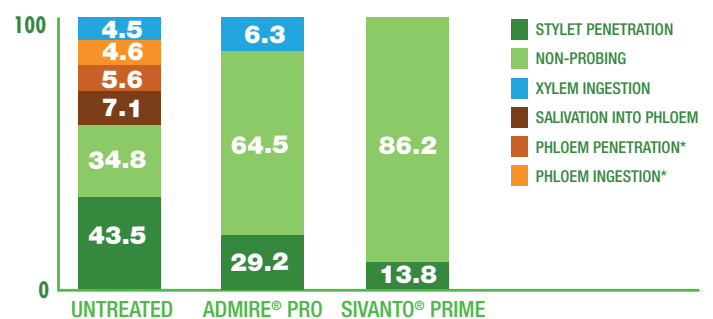
COMMERCIAL AIR BLAST SPRAYER AT 142 GPA.  
STUDY PERFORMED BY DR. JOHN CURTIS, BETTER CROPS, FORT PIERCE, FL, 2014.

## BAYTHROID® XL PROVIDES EXCELLENT KNOCKDOWN AND CONTROL OF ACP



STUDY PERFORMED BY DR. MICHAEL ROGERS, UNIVERSITY OF FLORIDA, WINTER GARDEN, FL, 2012.






## ADMIRE® PRO & SIVANTO® PRIME CAUSE A FEEDING CESSATION IN ADULT ACP



\*Admire Pro and Sivanto Prime cause a feeding cessation in adult Asian citrus psyllid that reduces and prevents, respectively, xylem and phloem feeding and HLB bacterium transmission.

STUDY PERFORMED BY DR. MICHAEL ROGERS, UNIVERSITY OF FLORIDA, WINTER GARDEN, FL, 2012.

## PROVEN SEASON-LONG PROTECTION APPLICATION TIMELINE

| PEST                  | PRE-BLOOM<br>JAN-FEB<br><br><b>MOVENTO</b> | FULL BLOOM<br>MAR-APR<br><br><b>SIVANTO</b><br>prime | POST-BLOOM<br>MAY-JUN<br><br><b>ADMIRE</b> PRO<br>SYSTEMS PROTECTION | FRUIT GROWTH<br>JUL-AUG<br><br><b>MOVENTO</b> | HARVEST<br>SEP-DEC<br><br><b>BAYTHROID</b> XL |
|-----------------------|---|---|--|--|--|
| ASIAN CITRUS PSYLLIDS | ✓   | ✓   | ✓  | ✓  | ✓  |
| CITRUS THRIPS         |   | ✓*  |  |  | ✓*   |
| RED SCALE             | ✓   |   |  | ✓  |  |
| KATYDIDS              |   |   |  |  | ✓  |
| CITRICOLA SCALE       |   | ✓   | ✓  |  |  |
| IRAC GROUPS**         | GROUP 23<br>Spirotetramat   | GROUP 4 (D)<br>Flupyradifurone  | GROUP 4 (A)<br>Imidacloprid  | GROUP 23<br>Spirotetramat  | GROUP 3<br>β-Cyfluthrin  |

\*Suppression only. \*\*Insecticide Resistance Action Committee's mode of action groups.



### PROTECTING THE CALIFORNIA CITRUS INDUSTRY

Bayer has partnered with the California Citrus Mutual (CCM) to help prevent the spread of Huanglongbing and preserve the California citrus industry through the Abandoned Citrus Tree (ACT) Removal Program. Without monitoring, trees that neighbor a commercial grove could easily become a host and bring pests and Huanglongbing into an otherwise healthy area. The ACT Removal Program allows growers to identify and request removal of abandoned trees that pose a threat to their groves.

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To stay informed on the latest Bayer products and solutions,  
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**MOVENTO**

**SIVANTO**  
prime

**ADMIRE<sup>®</sup> PRO**  
SYSTEM PROTECTANT

**BAYTHROID<sup>®</sup> XL**

Sources:

<sup>1</sup>USDA's National Agricultural Statistics Service Florida Citrus Statistics (2005–2006, 2015–2016 and 2017–2018 reports).

<sup>2</sup>University of California Integrated Pest Management Program, *How to Manage Pests: Asian Citrus Psyllids and Huanglongbing Disease*.

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