

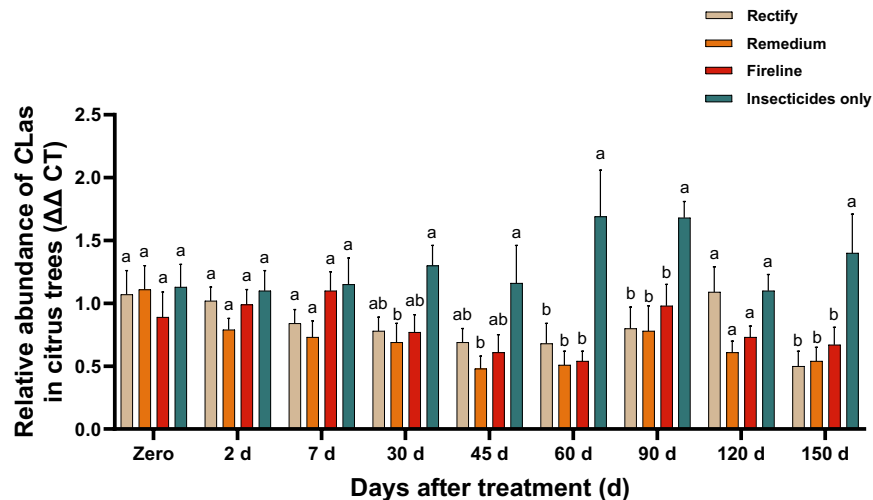
# Integrating Antibiotics into a Broader Management Plan for Huanglongbing

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**Summary:** Two formulations (ReMedium TI<sup>®</sup> and RECTIFY<sup>™</sup>) of oxytetracycline (OTC) for tree injection emerged with registration in 2022-23. We have investigated how both formulations affect tree health, as well as, the psyllids' ability to transmit the pathogen. The treatment is relatively fast acting and reduces CLAs populations in mature citrus trees by 30 days after application. Pathogen titers are knocked down significantly in both productive and unproductive trees alike; however, we do not know yet if those unproductive trees will be brought back to productive levels of health. Our initial data indicate that



Abundance of CLAs in citrus trees injected with Rectify, ReMedium, or Fireline (experimental treatment) as compared with untreated trees. All treatment plots were treated identically with insecticides. Means followed by different lowercase letters are statistically different per sampling date.

both ReMedium TI<sup>®</sup> and RECTIFY<sup>™</sup> caused comparable reductions in pathogen titer. Furthermore, the results have been consistent in multiple trials with trees ranging from 4-5 feet to mature trees greater than 8 feet tall. Both formulations disrupt CLAs transmission by Asian citrus psyllid. There is also evidence of improved yield in younger antibiotic-treated trees after only one year. In ongoing work, we plan to integrate three aspects of huanglongbing (HLB) management: 1) minimizing vector populations (with threshold-based sprays), 2) reducing pathogen load and likelihood of transmission

(with trunk-injected OTC), and 3) ameliorating disease symptoms (with gibberellic acid).

### Take Home Message:

- Timing sprays revised according to action thresholds rather than applying on a calendar basis.
- A revised HLB management program to maximize effectiveness of combining OTC injection with gibberellic acid treatment.
- The net returns for each practice will be calculated and compared to determine the economic feasibility of each component of this system.

### Funding:

 National Institute of Food and Agriculture  
U.S. DEPARTMENT OF AGRICULTURE

