OUR #1 GOAL: CONTROLLING HLB
The Ultimate and Only Objective

The huanglongbing (HLB) threat to the California citrus industry is very real. If your tree becomes infected, the fruit will become unmarketable and the tree will die. That’s the bottom line. This disease is the ultimate threat to our survival.
EXISTING THREE-PRONGED STRATEGY

The current three-pronged strategy to fight HLB – (a) keeping nursery stock clean, (b) suppressing Asian citrus psyllid (ACP) populations and (c) removing diseased trees upon regulatory confirmation of the presence of ‘Candidatus Liberibacter’ species (‘Ca. L. asiaticus’ or CLas) – has clearly failed to stem the spread and progression of the disease in Florida, Texas and California, according to the recent research of David Bartels, Ph.D., an entomologist at the USDA APHIS PPQ Mission Laboratory in Texas. Citrus quality in those states is declining, and production in many groves has fallen by more than an astounding 50 percent. Florida’s 2015-16 orange crop is expected to be the smallest in half a century. The heavy use of insecticides to suppress the ACP vector populations is not fully effective, which means psyllids are feeding on an increasingly greater number of likely CLas-infected, yet asymptomatic, trees.

California has adopted this three-prong strategy and, like Florida, relies on regulatory agency data collection, analysis and diagnostic efforts. However, the effectiveness of these approaches is restricted by tight protocols and limited resources. Our industry also has invested heavily in scientific research to assist us in extending our existence long enough to find a solution. California needs to immediately support the high-throughput investment of early detection technology devices.

REALIZING THE THREAT

The most current research indicates that the use of antimicrobials and other treatment regimens (such as thermal therapy) to extend the productive life of infected trees is commercially impractical, at best palliative, and at worst only serves to keep infected trees in the ground longer. Some progress has been made in developing cost-effective early detection technologies, but there has been little industry discussion about implementation specifics. After more than 15 years and nearly a quarter of a billion dollars of research, marginal progress has been made in developing a long-term cure for HLB or an HLB-resistant rootstock.

Ignoring the costs associated with the destruction of grower balance sheets, the cost to manage the spread of ACP in California – assuming 200,000 acres and at least an additional two to five dedicated pesticide sprays per year – could reach $50-120 million annually or more ($250-600 per acre) within the next five years. This equates to $30-.70 per carton on an 850-carton per acre grove. Then, there is enhanced nutrition. From what we know to date, the best programs are costing more than $500 per acre per year. Again, assuming 200,000 acres, the additional cost to our growers is at least $100 million per annum. Therefore, the total cost to the California citrus industry could be $220 million annually. The cost to the
state's growers could total $750-1,100 per acre per year, or about $1.30 per carton on 850 cartons per acre production. Even then, such expenditures will not stop the spread of HLB in our orchards. It may slow the destruction of diseased trees, but any fresh fruit infected with HLB that is sold marks the beginning of the end for us in the marketplace.

It should be evident that sticking with the current strategy and facing the unintended, but likely, consequences of encouraging growers to hunker down, rely primarily on bug containment, remove only regulatory-confirmed and/or symptomatic trees and wait for the commercialization of a magic bullet will only shackle growers with increasingly higher farming costs and lead to the inexorable collapse of California’s productive citrus capacity.

This devastating disease already has manifested itself in Southern California. Collectively, we must formulate an immediate strategy.

**HLB SUMMIT**

On December 1, the industry brought key forces together for an annual HLB Summit here in California. It differed from the meeting held at the University of California-Davis this past autumn in that it added in the research and experiences of Florida to develop a comprehensive grower action plan. The morning session clearly demonstrated the urgent and immediate need for investment in Early Detection Technologies.

In September, the Citrus Research Board (CRB) developed a format to assemble leading scientists and industry leaders from Florida together with us to develop a blueprint to combat HLB right now. The best and most experienced minds currently battling this disease in Florida presented their thoughts on developing short-, medium- and long-term strategies to move forward. Scientists who can predict infection movement and detect the bacteria in a pre-symptomatic stage shared research findings.

This one-day session encouraged attendance from a representative cross-section of industry stakeholders (nurseries, growers, marketers and packers/shippers), as well as researchers at the forefront of observation/modeling, diagnosis and treatment of vector populations and the disease.

**THE HLB SUMMIT HAD THREE MAIN OBJECTIVES:**

1. **Raise key stakeholder awareness of the urgency, scope and magnitude of the threat.**
2. **Provide a forum for open, robust discussion of (a) disease progression and the effectiveness of current HLB strategies in Florida, Texas and Brazil, (b) the current state of HLB-related research and (c) the limitations of existing disease diagnostics, treatments and strategies.**
3. **Achieve consensus on the need for a non-regulatory, industry-driven approach that includes institutionalized predictive processes and organizational capabilities to combat the disease along with broad, but achievable, strategic directives with two over-arching goals:**
   a. **Extend the economic life viability of existing trees in the ground.**
   b. **Shorten the time to development and commercialization of a cure and/or protectant.**

**FOUR KEY COMPONENTS EMERGED AS A RESULT OF THE SUMMIT:**

1. **Institutionalized Process** – a transparent and highly interactive, managed process that goes beyond simply coordinating sample collection/analysis efforts and recommending psyllid control action plans. It incorporates regular review and possibly in-field testing and deployment of early detection technologies, HLB-infected tree removal and broad industry outreach.
2. **“War Room”** – an interdisciplinary panel of researchers, industry players and regulatory representatives that meets after data collection/analysis cycle to do a situation assessment and create and amend ACP/HLB remediation action plans within the context of the latest research and organizational capabilities.
3. **HLB Task Force** – a small accountable organization tasked with managing the process.
4. **Infrastructure** – includes CDFA, other regulatory and non-regulatory resources and capabilities.

Our whole industry needs to unite to develop this working plan. California Citrus Mutual and other industry leaders initiated bringing growers together to create a battle strategy to attack these devastating bacteria.

HLB will obliterate our industry unless we control our fate on a unified basis. Every grower and every orchard owner must understand this has to be a combined effort. Each tree that is infected with this bacterium must be eliminated immediately. The bacterium has to be controlled at the earliest stage of infection. This is not a disease we can attack tomorrow when we know a tree is infected today. Our industry must stand together and move forward aggressively.

Florida has the capability of chemically altering orange juice to mask the HLB flavor change. However, the California industry sells a single piece of unaltered fruit to each consumer. With fresh fruit, we cannot mask the flavor change. When we, as growers, start delivering HLB-affected fruit to consumers, California will lose its industry. The flavor change that the HLB-infected tree imparts to the fruit is dramatic, and neither your family nor our consumers will accept it.

If we allow the HLB bacteria to infect our trees, consumers will abandon California oranges, mandarins, grapefruit and lemons, and our citrus industry will be lost.

*Richard Bennett is the chairman of the Citrus Research Board.*