

Experiences of One Florida Grower with the Management of Huanglongbing – Success Over Time

Mike Irey, United States Sugar Corporation/Southern Gardens Citrus
Clewiston, FL

Huanglongbing (HLB) was found for the first time in residential trees in Florida in August of 2005 and in commercial groves for the first time in October, 2005. Among the first commercial finds, were 7 trees at the Southern Division Grove of Southern Gardens Citrus Corporation (SGC). Immediately after HLB was first found at SGC, the company began to take measures to control and manage the disease. The basic program that was developed at the time was the one that was recommended by virtually all of the world experts studying HLB and consisted of scouting for and removal of infected trees, aggressive control of the psyllid insect vector, and replanting with disease-free trees (collectively called the “best practices” approach). This management program was implemented within days of the first find at SGC and is still in effect today.

The control program has been difficult to implement on many levels. It has required a substantial increase in personnel, a substantial increase in insecticide applications, and the removal of hundreds of thousands of productive trees. All of this has resulted in an increase in production costs on the order of more than 50% and the removal of approximately 20% of the trees in the three groves owned by SGC. Due to the expense of the program and the difficulty in implementing it, many growers have chosen to either not implement similar control measures or have abandoned control programs after a short period of time. To a certain extent, this is understandable as data showing the effectiveness of the control measures were not available in the early years of the HLB pandemic in Florida.

Now after 3+ years of implementation, data are now becoming available to show that the best practices approach, although difficult to implement, can be successful if implemented with conviction. Data from SGC, indicate that once control measures were implemented, infection levels continued to increase for approximately 2 to 2.5 years, after which time infection levels peaked in late 2008. Since then, infection levels have declined and appear to be remaining at manageable levels. Data provided by other growers using similar approaches have shown similar results, i.e. that it requires 2-2.5 years to achieve adequate control of the psyllid and to rid the system of latent infections. Said a different way, once control measures are implemented, infection levels are likely to increase for a period of time up to 2.5 years. After this time, the combined effects of the best practices approach should result in a reduction of new HLB detections and in the overall level of HLB.

The long period of time necessary to achieve manageable levels of HLB control is a tough and not well understood concept within the grower communities.

Growers are not used to implementing expensive control measures for long periods of time and not achieving some level of control in short order. Thus the increase in infection that was observed in Florida by many growers was troubling and resulted in many growers abandoning the best practices approach with the thought that they would never be able to get in front of the epidemic. However, it is likely that many/most of the Florida growers that have abandoned the management program might have done so prematurely prior to actually realizing the benefits that were to come.

The fact that it takes several years to get control of the HLB epidemic is a critical concept for growers to understand. Once HLB is detected and control measures are implemented, growers can expect the incidence of HLB to actually increase for a period of time that is measured in months to years. However, this is to be expected and should not be a reason to abandon the control efforts. If effective management of HLB is to be achieved, growers must be diligent and determined and the program must be carried out over a period of several years. Data from SGC, other growers in Florida, and from elsewhere in the world have now shown that the best practices approach will work as a management program for HLB.

Based on our data, the take home message is that HLB management/control is hard and costly, but it can be done given enough time.