

Time to Start Removing Abandoned Groves

By Harold Browning



One of plant pathology's fundamental tenets is that unmanaged reservoirs of disease inoculum and vector population are a primary driver for disease spread. Clearly, getting rid of infected plants is an important tool to stave off diseases such as huanglongbing (HLB).

The simplest example of this general rule is the mandatory destruction of crop residues following harvest of annual crops as a method of disease or pest prevention. The process eliminates the host reservoir before the next crop is planted. Disease organisms and the vector insects have no bridge from one season to the next.

The complexity of managing HLB in Florida has been influenced by disease and vector reservoirs, and the accumulation of abandoned groves. The National Agricultural Statistics Service of the U.S. Department of Agriculture (USDA) has estimated that throughout the state's citrus-growing regions, there are 130,000 acres of these havens for psyllids and inoculum.

It is apparent to many that inoculum removal is an important step in planning for the future, along with Asian citrus psyllid (ACP) suppression tools, horticultural practices and disease management treatments.

And while wholesale destruction of all infected trees has proven a difficult challenge, a step in the right direction is on the way. At publication of this column, a measure to ramp up the Florida Department of Agriculture and Consumer Services' (FDACS) abandoned grove initiative was moving through the Florida Legislature and headed for approval. This initiative will provide incentives for removal of unmanaged groves, building on the continuing demonstration of benefit that has been conducted by FDACS with support from the USDA's Multi-Agency Coordinating Group.

We cannot remove all 130,000 acres at once, so a prioritization system could be employed to assist in identifying groves of greatest threat to neighboring managed groves. Residual nutrients in the soil following the discontinuation of management allow continued flushing, providing a resource for ACP. Thus, those groves most actively flushing are the greatest threat. The distance from managed citrus groves also is a factor that can be used to prioritize groves for removal. Nearest neighboring groves that have recently been removed from management may represent the greatest threat to adjacent groves. The Citrus Research and Development Foundation has been actively involved in communicating the importance of this effort to growers, legislators and other interested parties.

An alternative strategy to disable ACP and bacterial reservoirs is simply killing the trees, which might be less expensive and, therefore, more acceptable. Preliminary work on candidate herbicides has been conducted, requiring additional effort to include this option in tree-removal efforts.

The beauty of eliminating highest-risk, unmanaged groves is that the process will boost the effectiveness of HLB management, including bactericides, heat treatment and other practices. It also will be an important step in encouraging new plantings. Short of complete eradication of host citrus trees and related host plants for HLB, eliminating reservoirs of bacteria and the vector populations is the next best thing. A concerted effort by the industry to address this challenge will have dividends that will accrue with each grove removed.

Harold Browning is Chief Operations Officer of CRDF. The foundation is charged with funding citrus research and getting the results of that research to use in the grove.



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