

CITRUS WEED SPOTLIGHT

Sicklepod (*Senna obtusifolia*)

By Stephen H. Futch
and David W. Hall



Life cycle: herbaceous, summer annual or short-lived perennial

Plant height: 3 to 6 feet in height

Leaves: alternate; pinnately compound with two to three pairs of leaflets, terminal pair the largest; leaves about two-thirds to 2 inches in length; leaflets ovate, apex round; erect gland occurs between lowest pair of leaflets

Stem: stout, erect, ascending, branching, nearly hairless, yellowish green

Flowers: yellow, pea-type, in leaf axils, one or two in each axil, each on a thin stalk; petals five, unequally lobed; flowers in summer

Fruit: typically a thin, sickle-shaped bean pod; 3 to 6 inches long; typically green until maturity, then brown

Seeds: angular, shiny brown, three-sixteenths to one-quarter-inch long

Growth characteristics: upright, resembling a shrub

Distribution: native to tropical America; spreading from Florida north into Massachusetts, New York and Wisconsin, and west into Nebraska and Texas; also occurs in California

Comments: All parts of the plant are poisonous to livestock; a foul odor is released by crushing a leaf.

Stephen H. Futch is a multi-county Extension agent at the Citrus Research and Education Center in Lake Alfred; David W. Hall is a retired botanist with the University of Florida departments of botany and natural sciences in Gainesville. 🍊

Questions About Dealing With HLB

By Harold Browning



What are the latest updates on short-term research that will help with preventing pre-harvest fruit drop?

There are a number of tests in the field right now that are looking at plant growth regulators (PGRs) and the role that they may play in preventing or minimizing pre-harvest fruit drop. These trials are being conducted by researchers, growers, and registrants of PGR materials, and they vary in the materials, amounts, and how often they are being applied. Results indicate that further work is warranted. The Citrus Research and Development Foundation (CRDF) is currently planning for a 2013 Valencia trial to go out this month (one application), and also has plans in the works for season-long split applications to commence following bloom. Please remember that current use of these materials must follow label directions.

What about therapy for reducing huanglongbing (HLB) in infected trees?

CRDF has invested heavily in evaluating antimicrobial compounds that may reduce *Candidatus Liberibacter asiaticus* (*CLAs*) within HLB-infected trees. A range of candidate materials have been identified through screening in a citrus graft assay, and additional candidates have been identified in a laboratory test using a related bacterium. When promise is shown in these assays, greenhouse and now separate field trial, directions are planned to investigate two components under field conditions. The first is to evaluate the effectiveness of these candidates when applied in the field to in-ground trees containing *CLAs*. The second approach is to test available application techniques to match a method of application with the specific chemistry of the material of interest. Planning these trials in tandem, we can learn how to match the best application methods with the top performing candidates, and reach the goal of a top candidate going forward.

Is there any news relating to thermal therapy?

The use of captured solar heat to reduce *CLAs* is another approach that has shown promise. Researchers with the U.S. Department of Agriculture, Agricultural Research Services (USDA, ARS) and the University of Florida, Institute of Food and Agricultural Sciences (UF, IFAS) are testing materials used in covering trees as well as the variables that contribute to successful reduction in *CLAs* in infected trees. The January Citrus Show in Indian River will feature an update of this work, highlighting what has been learned and how it might be applied. In addition, a field day is being planned for spring 2014 to provide more information and a tour of sites where thermal therapy is being used.

When will tolerant rootstocks be available for growers to plant?

CRDF is engaged in helping get candidate HLB-tolerant rootstocks into commercial use through its Commercial Product Delivery Committee. The breeding programs at UF, IFAS and USDA, ARS have cooperated in identifying those candidates for which they have the most information, and are working through release processes. The latest update indicates that 16 rootstocks targeted by UF, IFAS as having potential will be licensed to nurseries in the next one to two months, allowing nurseries to work with growers who are interested in planting trials. While these early releases have risks associated with their early evaluation status, field planting will help speed up the evaluation process to determine how they might perform under field deployment. More information will be forthcoming in the next month.

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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