



Soil Culture Solutions, LLC (d/b/a Soilcea)
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Soilcea has the solution to Huanglongbing (HLB)

With support from the United States Department of Agriculture (USDA) and the National Science Foundation's Small Business Innovation Research Programs, Soilcea has developed Carrizo and US-812 rootstock varieties that are resistant to Huanglongbing (HLB).

Mirroring the evolutionary process of gradual adaptation and natural selection, Soilcea, in collaboration with the University of Florida, is using CRISPR to restore the natural ability of citrus trees to defend against HLB. The USDA classifies the resulting fruit as non-bioengineered.



 **CarriCea T1**
Rootstock: Carrizo

 **BeneCea D1**
Rootstock: US-812

- Vigorous growth
- Compatible with most scions



Wild-type
Control

Soilcea Tree

Thriving under HLB pressure

Soilcea's new citrus varieties are demonstrating significantly reduced disease levels and vigorous growth in the field. Shown to the left is an HLB-resistant Soilcea tree compared to a struggling control tree—both planted at the same time.

Soilcea's CRISPR-edited varieties experience a significant reduction in HLB disease levels. The four images below show Soilcea's CRISPR varieties (Soilcea rootstocks in the left two; normal scions grafted onto Soilcea rootstocks in the right two).

