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After the science is finished, the work begins – Navigating the legal and regulatory processes for the deregulation of genetically-enhanced HLB-resistant citrus

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Since the discovery of citrus Huanglongbing (HLB) in Florida in 2005, research efforts to develop and identify germplasm resistant to HLB have intensified greatly. Many research groups in Florida and elsewhere are screening existing citrus varieties and members of the Rutaceae in an attempt to identify useful sources of resistance that can be used in traditional breeding programs to produce commercial scions and rootstocks resistant to HLB. Although progress has been made, it is generally accepted that although some level of tolerance and resistance have been identified, it is not likely that these will be sufficient to confer commercially acceptable levels of resistance in the short term. Similarly, it is widely accepted that genetic modification using a biotechnology approach is likely to be the only way to achieve acceptable levels of resistance in commercial varieties in the near term. Progress has been made by many groups to produce and screen plants with a wide variety of genes and approaches, and more than one group is starting the process to collect the data necessary for deregulation. However, the deregulation process is daunting and full of hurdles and the science may actually be the easiest and the cheapest part of the project. The process as it applies to one project will be presented to demonstrate what is involved as the industry moves forward with this technology.