

Phytophthora hibernalis

Responding to a “New”
Phytophthora spp Nursery
Detection

Detection

- Routine inspection of *Pieris* shipment, March, 2010
- Inspector noted lesions on leaves
- Field ELISA positive for *Phytophthora spp*
- Foliar and soil samples taken for PCR analysis

Analysis

- Real time PCR analysis performed at DPI was negative, although the DNA amplified outside the range for a positive
- PCR analysis at USDA Riverdale lab also negative for *P. ramorum*
- Morphology of culture was not *P. ramorum* or other *Phytophthora spp.* known to exist in SC

Analysis, continued

- Subculture sent to Steve Jeffers' laboratory
- Dr. Jeffers was unable to identify the species
- Requested DNA sequencing by USDA Riverdale Laboratory
- Confirmed as *Phytophthora hibernalis*
- Koch's postulates

What is Known About *P. hibernalis*?

- Reported on citrus in 1925
- Regulated pathogen on citrus in Korea
- Causes lesions on leaves, citrus brown rot
- First reported in US in 2005 – OR, CA
- Cross amplifies with *P. ramorum* and *P. lateralis*

Regulatory Status and Options

- *Phytophthora hibernalis* is not regulated by USDA
- How to handle infected plants?
- Not “just another *Phytophthora*”
- Not “widespread in the nursery industry”
- Requested NPAG
- Asked for input from PPQ, CPHST, foresters, other states, nursery

Concerns for South Carolina

- Any foliar *Phytophthora spp* of concern to nurserymen
- Any foliar *Phytophthora spp* not readily identified by Steve Jeffers is of regulatory concern
- *Phytophthora hibernalis* never documented in East before
- No record of *Phytophthora hibernalis* on *Pieris* in US before
- Biology and host range not fully known

Concerns for South Carolina (Continued)

- *P. hibernalis* causes a serious citrus disease. SC has already spent a great deal of time and resources on another citrus disease (HLB) to keep it from spreading to the West
- Even though some experts believe that *P. hibernalis* poses less devastating to the environment than *P. ramorum*, much incorrect information about *P. ramorum* was believed and disseminated at first

Questions?