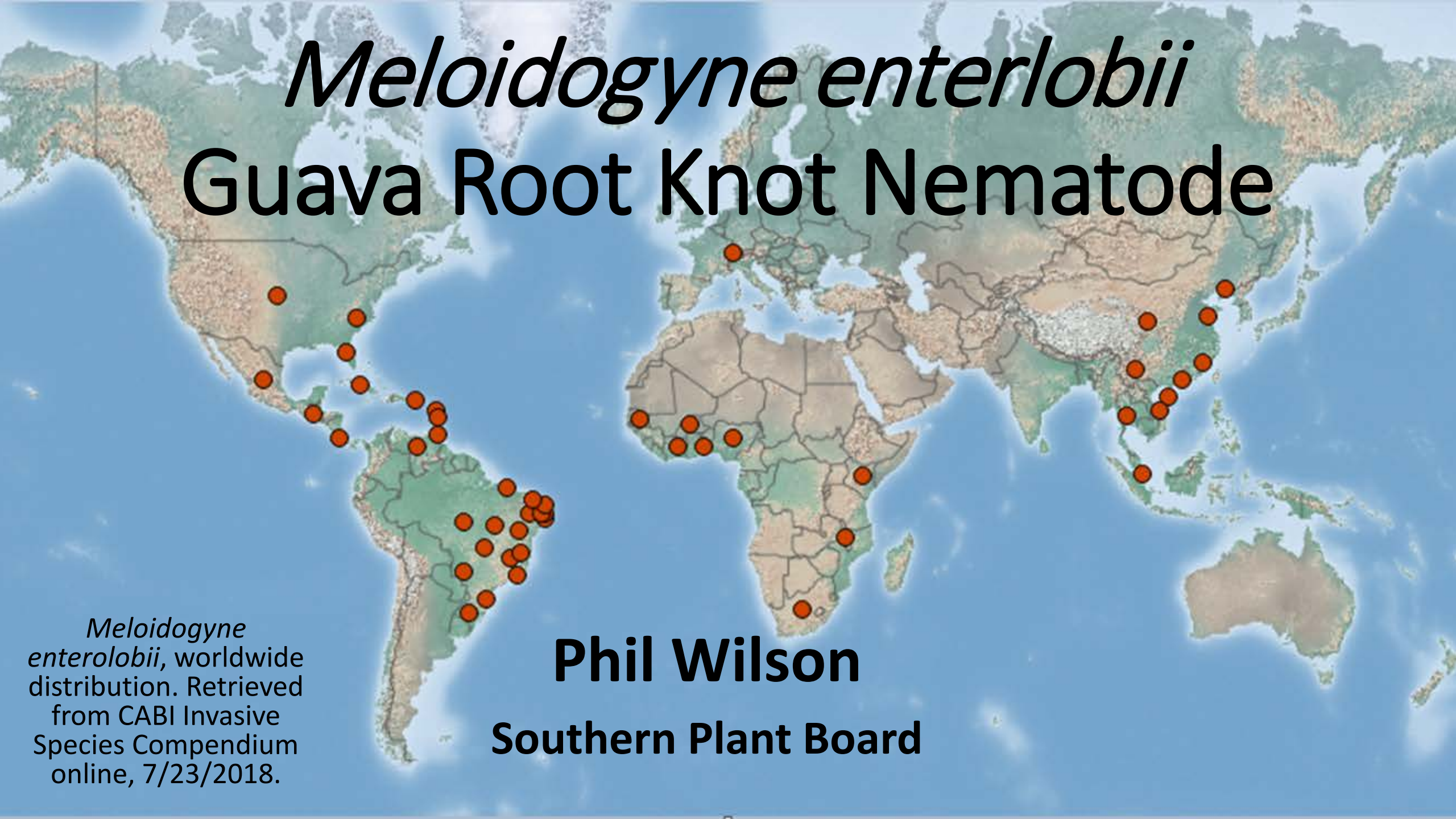


Meloidogyne enterlobii Guava Root Knot Nematode

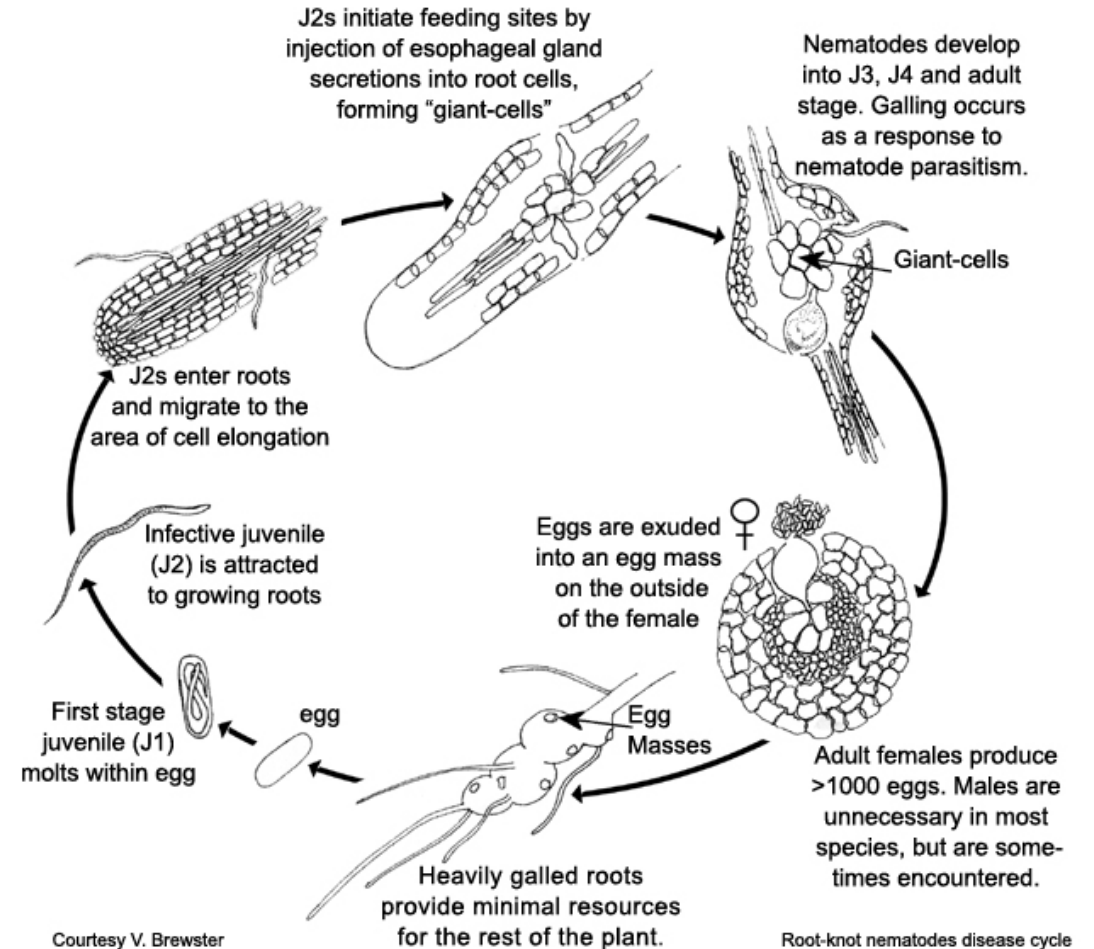
Meloidogyne enterlobii, worldwide distribution. Retrieved from CABI Invasive Species Compendium online, 7/23/2018.

Phil Wilson
Southern Plant Board



Meloidogyne enterolobii (aka *Meloidogyne mayaguensis*)

- Difficult to distinguish from common root knot nematode, *M. incognita*, unless using DNA-based diagnostics
- Huge host range including sweet potatoes, cotton, soybeans and many common weeds
- Uniform survey needed to determine US distribution
- Currently there is no effective control available. Crop rotation and BMP's are recommended



Guava Root Knot Nematode Timeline

- This is a tropical nematode first found in China
- 1988 – First US find in Puerto Rico
- 2002 – Found on ornamental plants in southern Florida
- 2011 – First find Wayne County, NC on cotton
- October 1, 2018 NC Issues an Internal Quarantine on *M. enterlobii*
- October 10, 2018 Louisiana Issues a Guava Root Knot Quarantine for NC, FL and SC.

Guava Root Knot Nematode Timeline

- December 28, 2018 Mississippi Issues a Guava Root Knot Quarantine for NC, FL and SC.
- March 12, 2019 Arkansas Issues a Guava Root Knot Quarantine for NC, FL and SC.
- April 4, 2019 NC updates it's internal quarantine to include mandatory compliance agreements for sweet potato propagators and packers/shippers/brokers.

Individual SPB State GRKN Surveys Completed

- Arkansas – Arkansas surveyed areas of state and collected approximately 60 soil samples with no positive GRKN finds
- South Carolina – Clemson staff collected 81 soil samples in the Spring of 2019 over 10 SP producing counties (10% of all fields planted in SP from 2016-18) and did not have any positive GRKN samples. They continue to test soil samples for *Meloidogyne* sp. to monitor
- North Carolina – 2018-19 NC processed 2014 soil samples from 916 randomly selected sweet potato fields across the state. Only 4.2% of the samples and 5.3% of the fields were positive for GRKN.

Current Strategy and Needs

1. Implementation of current best management guidelines

- Chemical fumigants and nematicides employed in root knot nematode control**
- Crop Rotation using crops such as peanuts or maize**
- Sanitation practices to prevent soil movement is important in controlling movement of all nematodes, weeds, etc.**

2. Uniform Surveys in Root Knot Nematode Regions of US

- DNA Testing to distinguish between *M. incognita* and *M. enterlobii***

Thank you!!
From the Southern Plant Board

