

## Minutes of the Virtual Initial Meeting of S1092

**Members Present:** Paula Agudelo, Emmanuel Byamukama (USDA Representatives); Kathy Lawrence (Alabama); Travis Faske (Arkansas); Zane Grabau, Johan Desaeger, and Abolfazl Hajihassani (Florida); Tristan Watson (Louisiana); Henry Nguyen (Missouri); Adrienne Gorny (North Carolina); William Rutter (South Carolina); Jon Eisenback (Virginia).

**Members Absent:** Senyu Chen (Minnesota); John Mueller (South Carolina); Tarek Hewezi (Tennessee); Terry Wheeler (Texas)

Kathy Lawrence (chair) welcomed all of the participants and took a group photo. She introduced Paula Agudelo the USDA representative.

Paula Agudelo welcomed everyone to the new project and encouraged everyone to officially join the group through your Agricultural Experiment Station and the NIMS website. She shared the list of official members.

Emmanuel Byamukama updated the NIFA program and gave details about the goals, objectives, and topics. He also discussed the major funding programs and encouraged all to apply.

### State Reports

**Arkansas report** – Travis Faske works in soybeans and corn reported on screening soybean for resistance to *M. incognita*. The top three cultivars have the same genetics. There is an interest in organic soybean production in his state too.

**Florida report** – Zane Grabau reported on his trials to control *M. enterolobii* on sweet potato. The Covington variety is susceptible to *M. enterolobii* and considered resistant to *M. incognita*. Telone provided the best yield protection. Sweet potato is not a host of sting nematode.

Johan Desaeger focused on vegetables in Central-South Florida 300 samples from 40 crops in 10 counties with *M. incognita* and *M. enterolobii* with a few other species. Sun hemp was shown to be a good cover crop for 4 nematode species and Sorghum sudangrass was good for *M. enterolobii* and *M. incognita*. *Nanidorus minor* is causing problems on tomato and strawberry. Abolfazi Hajihassani discussed distribution and pathogenicity of *M. floridensis* in Florida on several crops. He reported *M. floridensis* in Georgia on tomato, watermelon, cowpea, and cucumber and a search for resistance in *Solanum* spp. Collard did not appear to be a host for *M. floridensis*.

**Louisiana report** – Tristan Watson updated reniform nematode control update with more fields with higher nematode densities and less *M. incognita*. Resistant breeding lines from Missouri showed good resistance and high yields. Three in-furrow nematicides on sweet potato show Velum to be economically significant in one year but not the next year.

**Missouri report** Sushil Chhapekar and Henry Nguyen described a new strategy for resistance to multiple races of SCN by overexpressing Peking-type Rhg4 gene.

**North Carolina report** - Adrienne Gorny gave an update on *M. enterolobii* in North Carolina with 16 counties, mostly in the heart of sweet potato production. Nematicide trials to control RKN was inconclusive. Eggplant varieties were screened for resistance to *M. enterolobii* with similar trial on soybean and other crop plants.

**South Carolina report** - William Rutter reported about work with Ben Waldo on screening with wild citron melon for resistance to *M. incognita*. Eleven significant SNPs were identified with 4 distinct genomic loci on three different chromosomes. Quantitative resistance compared to GWAS pipeline.

**Virginia report** - Jon Eisenback demonstrated the distribution of beech leaf disease nematode and described the plant-nematode relationship. This is the latest invasive species in the US found in Ohio in 2012 now from Maine to Virginia.

**Alabama report** – Kathy Lawrence showed results from the reniform resistant cotton, sweet potato yields from biologicals and cover crops, and MG4 variety response to soybeans.

### **Summary and final report**

Abolfazl Hajihassani volunteered as chair in 2023 and will host the meeting in Ft Lauderdale.

Will Rutter volunteered as vice-chair and will host the 2024 meeting in Charleston.

More members are encouraged to join the meeting.

### **Schedule for S1092 Meeting**

- 1:10pm Welcome (Kathy Lawrence) Zoom photo
- 1:20pm Project initiation (Paula Agudelo)
- 1:30 pm NIFA update - Emmanuel Byamukama
- 1:40 pm State report – Arkansas (Travis Faske)
- 1:50 pm State report –Florida (Zane Grabau)
- 2:00 pm State report –Florida (John Desaegeer)
- 2:10 pm State report –Florida (Abolfazl Hajihassani)
- 2:20 pm State report – Louisiana (Tristan Watson)
- 2:30 pm Coffee Break
- 2:40 pm State report – Minnesota (Senyu Chen)
- 2:50 pm State report – Missouri (Henry Nguyen)
- 3:00 pm State report – North Carolina (Adrienne Gorny)
- 3:10 pm State report – South Carolina (John Muller)
- 3:20 pm State report – South Carolina (Robin Williams)
- 3:30 pm State report – South Carolina (William Rutter)
- 3:40 pm State report – Tennessee (Tarek Hewezi)
- 3:50 pm State report – Virginia (Jon Eisenback)
- 4:00 pm Summary and final report information

Respectively submitted:

Jon Eisenback and Kathy Lawrence