

AU-FHC Advisory Meeting - FY 17

Q=Question A=Answer C=Comment/Suggestion

Meeting started at 1:05

FDHL Update and SOD-Luis Mendez

Q: Does (*P. ramorum*) infect pine? A: Dr.E- No

Q: Can you show a progression map (in reference to confirmed *Leptographium* root infections)?

Differentiate between the *Leptographium* species?

Screening Elite Loblolly pine families-Charles Eissen

Q: Were the pine trees in an artificial stand?

Q: Was there a site difference?/Any idea if there were a difference? A: Didn't do soil analysis.

Comment: Perhaps a different geology.

Q: Do you know the cost benefit of using acoustics? A: Charles- Using Acoustics has a lower cost (equipment, but higher labor cost?) but does not offer density prediction. NIR just requires taking core samples.

Q: Does this work on cut wood?

Variation in tolerance of several Loblolly pine families-Pratima Devkota

Q: Rank? (Slide: Connector Families-Yearly Performance) A: Pratima- They are ranked based on the differences between each year, the order (on the graph) are the same for 2013-2017 (C: Dr. E no data for 2015, trees were killed by the cold)

Q: Were these (seedlings) grown in containers? A: Yes

Q: Did the spores change? A: Dr. E- No, we our cultures are always re-isolated from pine so that they don't lose pathogenicity/virulence.

Q: When do you receive the seedlings? A: January

Q: Was there a correlation between seedling size (in reference to lesion), ie Pathology studies on small trees having smaller lesions? A: Pratima- did not look at this

The role of *Leptographium terebrantis* and *Grosmannia huntii* invasion-Pratima Devkota

C: Virulence of two fungi increase under drought through different mechanisms- Asked to be better explained (posted to website?)

Q: Publishing research? A: Dr. E- She is currently work on several manuscripts to be submitted.

Q: Studies done on other Pine species?

Q: Were these grown in containers? A: Pratima- Bare root.

Q: Fertilizer? A: No

Driving towards biocontrol of ophiostomatoid fungi-Pratima

Q: So you did above ground biomass? A: Pratima-Total plant biomass, Needles, stem, and Roots

Q: Do the strains occur in nature? A: Yes.

Q: How would you operationally apply this (bacteria)? A: Pratima- Haven't tried it yet. Dr.E- Could inoculate via root dips or inoculate the seeds.

Q: Any idea how long does the bacteria stay in the soil?

Q: Can these bacteria be purchased?

Q: How is this being used in Ag?

The answer to the last 3 were that it is still in its research phase...

** Dean Alavalapati came in right after one of Pratima's presentations

Forgot to take notes for his visit, but I remembered that there was an overall praise for the co-op and how it is helping people/people just getting started.

Intra-species variation in response of mature loblolly pine-Pratima

Q: You tested lots of families, what are we missing in terms as testing (screening)?

Q: More research?

Q: New direction?

The effect of *Sirex* spp. woodwasps and their fungal associates-Dr. Eckhardt

Q: How many traps/sites? A: 32 sites.

Q: Why noctilio? (What does the name mean?)

Pathogenicity of *Leptographium terebrantis*-John Mensah

Q: What's the protocol for inoculated tree as in disposal after the experiment?

Physiological response of Loblolly pine-John

Q: Did you sample the same needles? (Stomatal conductance) A: Just the same Tree.

Quantifying the impact of pine decline-Dr. Nadel

Q: Are you measuring height? A: Yes, we measure them in December as the trees aren't growing.

Closing Remarks and Q&A-Dr. Eckhardt

Q: Will you be publishing your findings (SOD)? A: We will be publishing a first report.

Q: Any correlation to activity i.e. thinning (pine decline)? A: No correlation.

Q: What's the age you see the disease? A: 17.

Meeting ended 6:00

Day 2 of the meeting

Meeting started 8:04, Dr. Eckhardt introduces Dr. Sole

Nanocellulose/lignin possible bark beetle control-Dr. Sole

Q: How fine are the particles? A: 20 nanometers

C: Simulating Nozzle spread? And issues with spreading materials onto neighboring stands.

Q: How much is this being used in Ag? A: This is very new and is still in its research phase.

Q: Effect on Bees? Sensitivity to plants? Slow release?

Q: Has the nursery co-op heard your presentation? C: Nursey would be a great start.

FY 2017 Accomplishment-Dr. Eckhardt

Q: What's the timeline for the whole project? A: 2020.

FY 2018 Work plan

C: Letter to congressman (don't remember what Alan was talking about, maybe for funding?)

FY 2017 Budget

We had one member (Alan Wilson) that can vote at the meeting and he approved the budget.

Conference meeting ended, left for field meeting at Eufaula site.

Field Meeting

We arrived at the site at 11:00

Weather Station-Dr. Nadel

Q: How much does this cost? A: Nadel- about \$1,000.

C: Could you summarize the weather data and post that to the website?

Q: Is this study accessible to the public (can people find this study by doing a simple google search? C: Opportunity to promote research and draw in more members.

Radial Growth Measurement & Treatment Application-John

Q: What's the cost of the ceptometer? A: Nadel-Couple of grand.

C: Explain dendrometer bands.

How does *Leptographium terebrantis* affect insect population? –Jessica

No Questions or Comments

Leaf Area Index-John

Question: How come May LAI is higher than February (all graphs)?

What is killing my trees? –Jessica

C: Can you post the data (poster?) on the website.

Study of fine root abundance by minirhizotron-Nadel

Q: How much does this periscope cost? A: 15,000, that's the price of the periscope and the tubes.

Q: When did she start recording data? A: we waited for 5 months to allow the soil to settle.

The effect of soil moisture content in soil microbial biomass-Nadel

Q: What's her hypothesis? A: To see whether seasonal changes has an effect on MB with treatments.

Q: How many replicates per treatment? A: 3.

Concluding Remark

Q: Are there chemicals that treat the fungus? A: Dr. E-talked about tree chemicals and their effects on fungal growth. (I think he was asking about the Plant Growth Promoting Bacteria and their ability to suppress Leptographium growth)

Q: Do the treated tree have effect on their adjacent tree (root grafting)? A: we have not observed that, but there is evidence showing this in long leaf pine in Fort Benning.

C: How can we help with recruiting new members? Have you put up pine decline information on what can be done? What can be done Silviculturally? Tip moth control. More information/Article about the co-op. For article, you could include the members (%private, %etc.). And more marketing.

Field Meeting ended at 2:00