

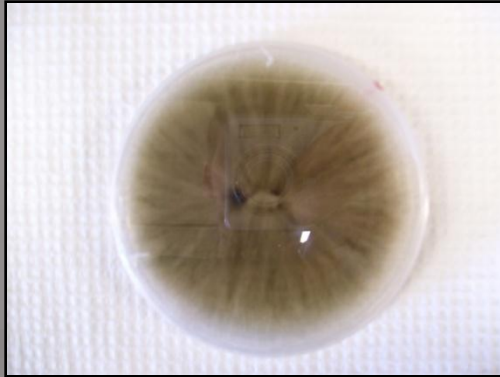
The Virulence and Pathogenicity of Root-Inhabiting Blue-Stain Fungi



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Root Inhabiting Blue-Stain Fungi

Leptographium procerum



Leptographium terebrantis



Leptographium serpens



Leptographium huntii
(*Grosmannia huntii*)



Pine Seedling Inoculations

Experiment 1

Virulence of Four Root-Inhabiting Blue-Stain Fungi on Southern Pine Seedlings



Pine Seedling Inoculations

Virulence of Four Root-Inhabiting Blue-Stain Fungi on Southern Pine Seedlings



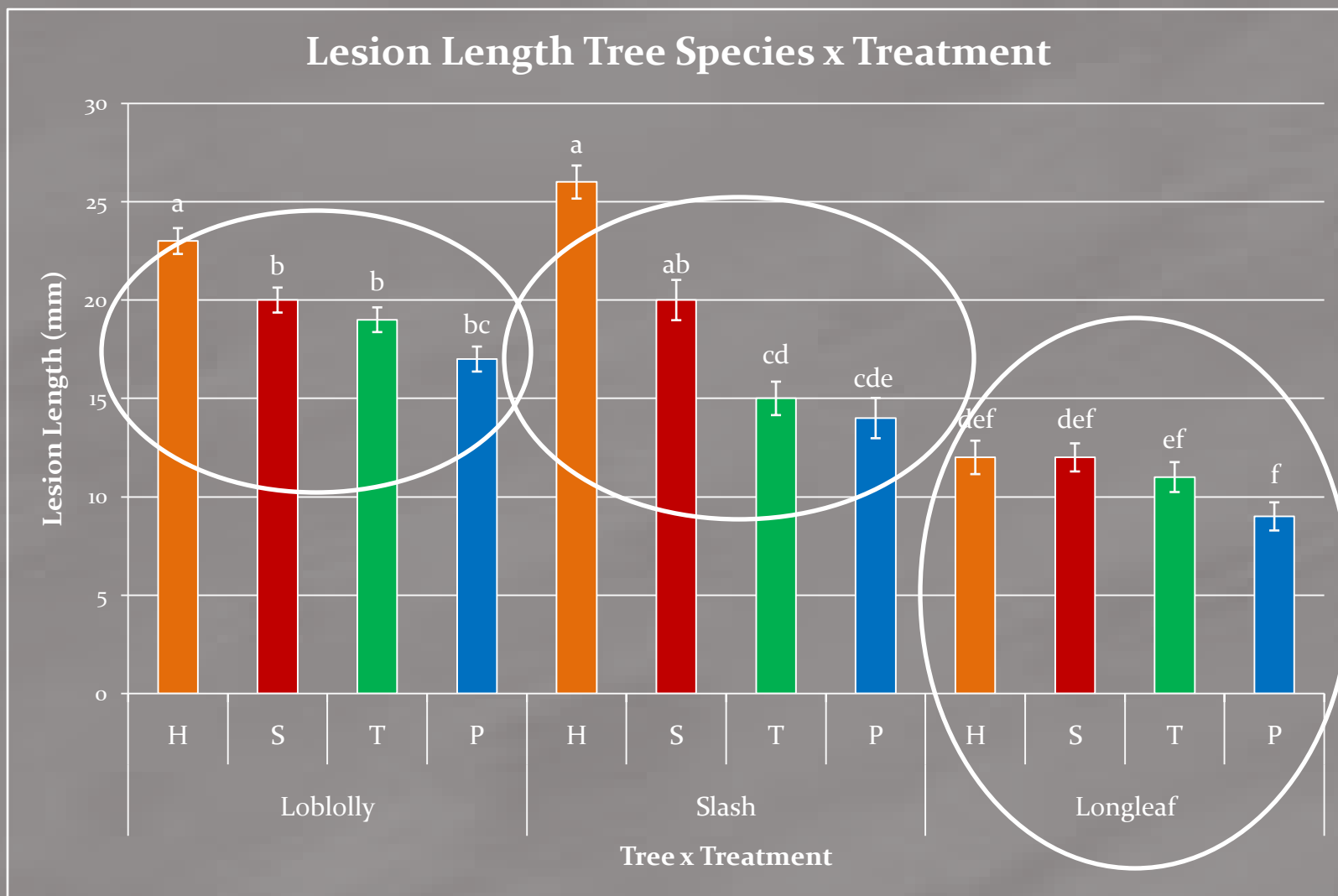
Lesion



Callus

Pine Seedling Inoculations

Virulence of Four Root-Inhabiting Blue-Stain Fungi on Southern Pine Seedlings



Pine Seedling Inoculations

Experiment 2

Virulence of *Leptographium serpens* on Longleaf Pine Seedlings under Varying Soil Moisture Regimes

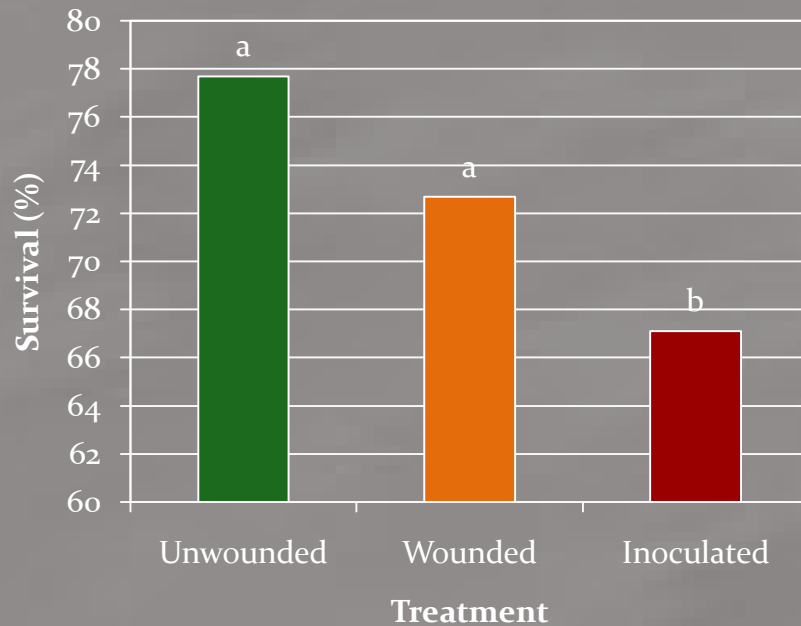


Pine Seedling Inoculations

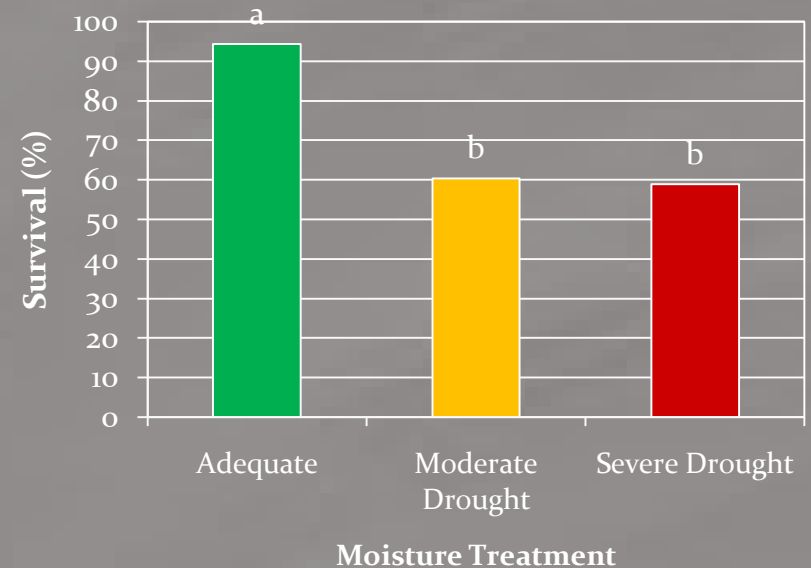
Experiment 2

Virulence of *Leptographium serpens* on Longleaf Pine Seedlings under Varying Soil Moisture Regimes

Longleaf Pine Seedling Survival by Treatment



Longleaf Pine Seedling Survival by Moisture Treatment



Tree Root Inoculations

Plantation Pine

Experiment One

Loblolly/ Longleaf

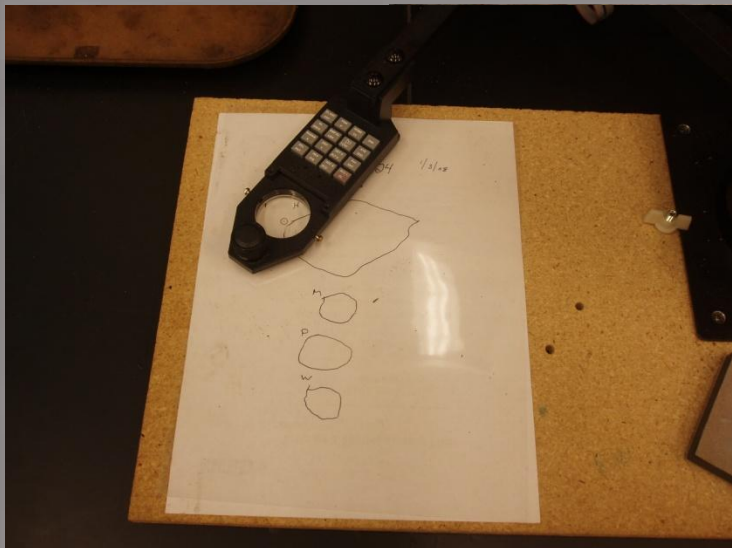
Experiment Two

Loblolly/Slash

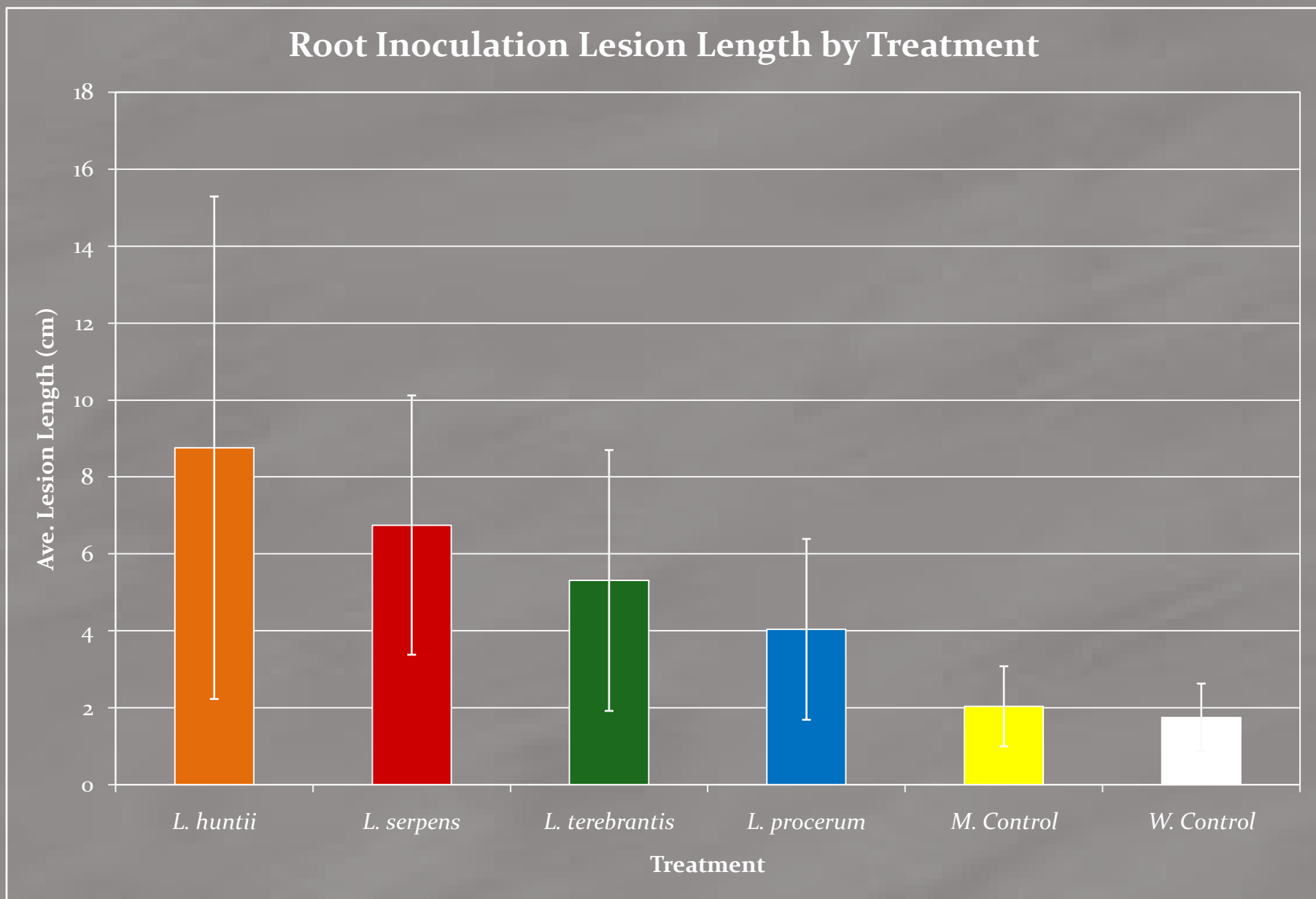




Tree Root Inoculations



Tree Root Inoculations



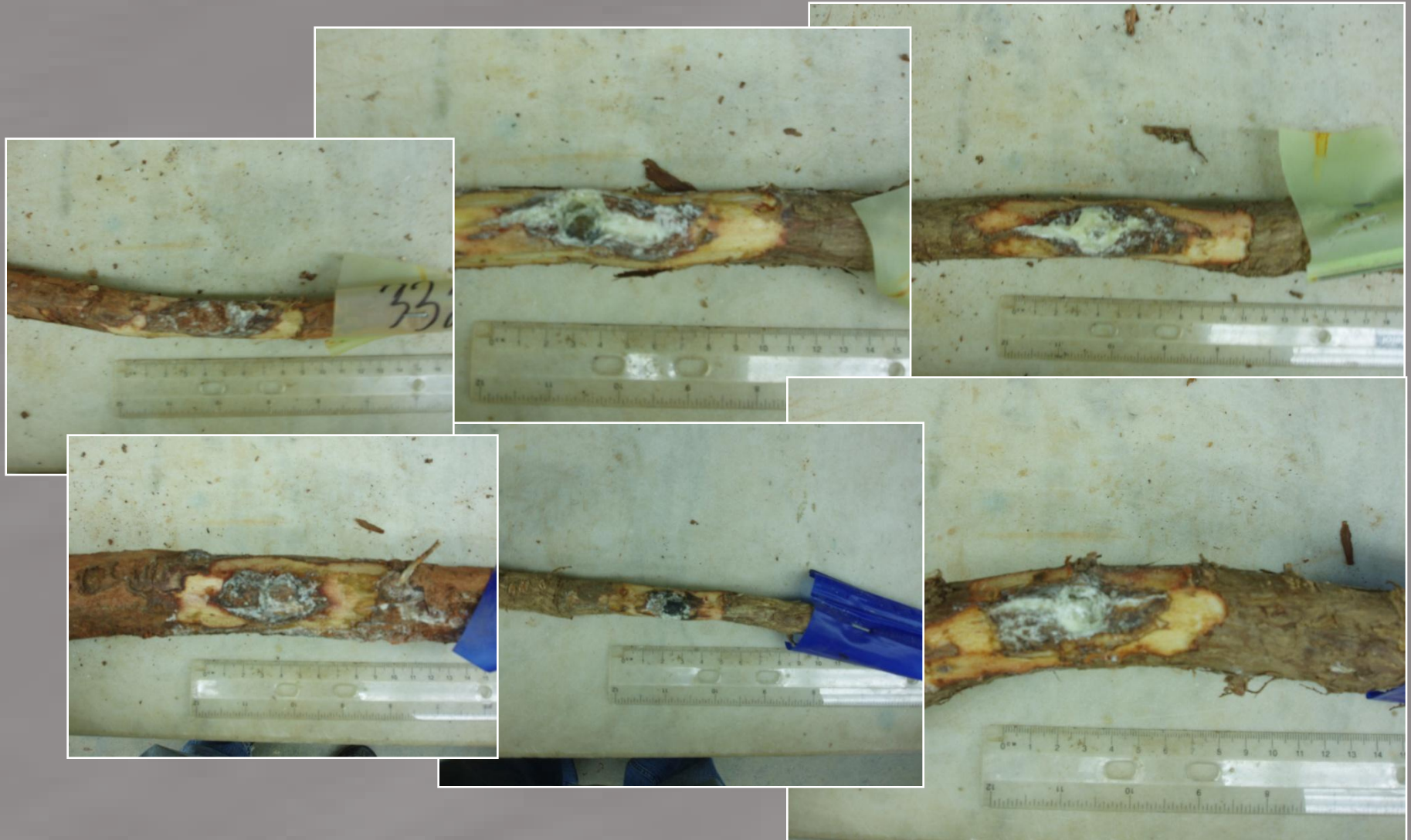
Root Inoculation Observations

Wound and Media Controls



Root Inoculation Observations

L. terebrantis and *L. procerum*



Root Inoculation Observations

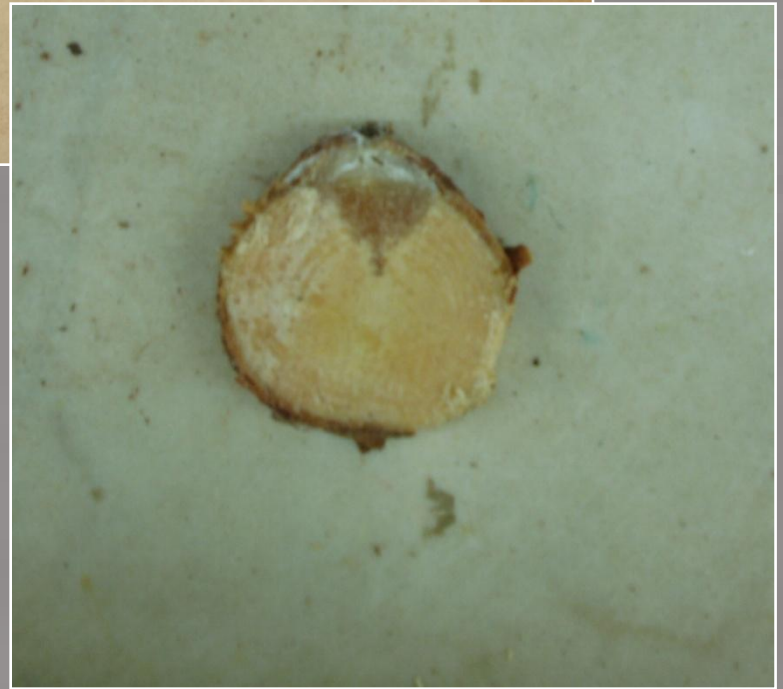
L. serpens and *G. huntii*



Root Inoculation Observations



Root Inoculation Observations



Conclusions

1. All root inhabiting blue-stain fungi are capable of infection in all hosts
2. Evidence of local symptom development in pine seedlings and mature roots
3. *G. huntii* and *L. serpens* are more virulent than other species and treatments
4. *L. serpens* causes mortality in longleaf pine seedlings
5. An accumulation of inoculations would have the potential to cause significant damage



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Questions

