

Biochar as a soil amendment and growth stimulus for *Eucalyptus* forestry plantations under Tasmanian conditions

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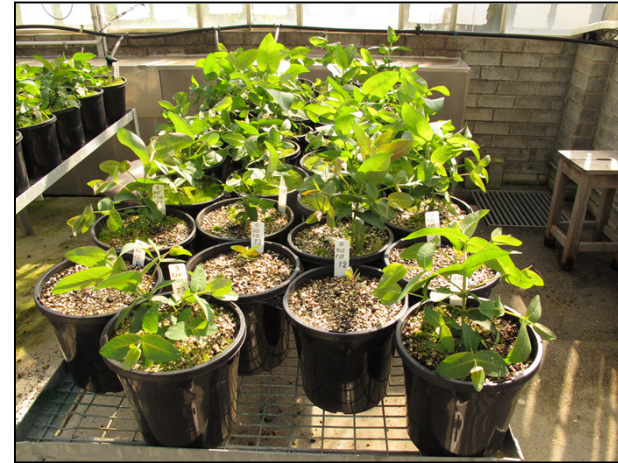
FOCUS:

- Biochar for forestry commercial plantations and nurseries
- *Eucalyptus nitens* response to biochar on Tasmanian soils – general approach
- Early growth stage
- Possibility to decrease fertilizer doses
- Soil chemical changes (N, P, CEC,pH),
- Plant nutrients uptake, can biochar significantly change it?
- Soil solution changes - leaching
- Basic costs analysis
- Pot trial, Field site, 2-phase study



POT TRIAL

- Early growth stage 10 months from sowing
- 16 treatments (7 biochar doses 2-100 t/ha vs. 2 fertilizer levels 50-100% optimum dose)
- Agronomic response (growth, leaf area, leaf number)
- Soil chemical changes over time
- Plant nutrition changes over time
- Germination study



FIELD TRIAL

- Florentine valley, S-E Tasmania
- 2 years from planting
- 18 treatments (biochar 2-20 t/ha vs. fertilizer 50-100% optimum dose)
- Agronomic response (growth), soil changes and plant nutrition
- Soil solution chemical analysis – zero-tension Lysimeters



EXPECTED RESULTS

- Can Eucalypt grow better with biochar? Why?
- Work out decreased fertilizer doses for forestry plantations
- Check on biochar amendment profitability
- Using harvesting residues for making biochar?

