

Date: Fri **Time: 1:30-3:00pm**

Session: Ecology

Moderator: Mateo Scoggins

Note-taker: Angela England

Notes From Discussion:

1. Ross: why not looking at active bacteria : active fungal ratio, not just total count
 - a. Same lab! GAP – need to agree on best metrics to assess degraded vs reference
2. Compost tea: scientific background?
 - a. No known lit for ripn restn compost tea, research in mostly ag settings. Biological inoculant allows stimulant to bioactivity without including nutrient confounding factor.
 - b. Better to get the soil just right.
 - c. Freemont cottonwood indivs have soil components specific to them. (New research pub)
 - d. Pathogen introduction risk
3. Compost source hard to specify.
 - a. Components hard to find out truth. Kitchen waste y/n.
 - b. No regulation.
4. Was soil phosphate a useful measure of degraded vs reference?
 - a. Stat significant? Appears so. Degraded sites were higher. We want to make nutrient measures, dictate max allowable on incoming soil amendments.
5. RFA soil chemistry?
 - a. Soil org Carbon, didn't discern between, physical measures better.
 - b. Ca:Mg ratios indicator of degraded
 - c. EC (Electrical conductivity) very low compared to residential, indicator of nutrient availability. Determines the size of the cup. In excess, soil can't hold it properly.
6. How getting compost into tree areas
 - a. Core aeration – small plugs pulled out of lawn, light top dress of compost
 - b. Trees: vertical mulching similar, handheld auger 12" deep hole outside half-critical and fill holes with compost.
 - i. Consider air excavation tool instead of auger?
 - ii. Less root damage with auger, but less depth possible if v compacted.
 - iii. Radial trenching, air spading in trenches.
7. How to get clear metrics to put into contracts? Ideas/progress/needs?
 - a. Compost is key issue. how judge quality?
 - b. Suppliers can't always match quantity needs
 - c. Project need to get specifications right, contractor who can will follow, composter source to make it, guidelines how to test it, labs to do so, guidelines on how interpret results reliably.
 - d. Lab: problem: can't switch labs midproject, stick with original lab.
8. Compost tea has two issues: what are the starting materials, method how it is made.
 - a. Compost stability index (didn't get name)
 - b. Issue of providing ingredients: don't want to be regulated as "fertilizer" producer.
 - c. Be prepared for increased price, lowest bid problem. Sodium ingredient.

- d. We are compost nerds!
- 10. Any biochar experience?
 - a. Soils are alkaline in Austin, problematic according to engineers
 - b. Want more experimentation on topic!
- 11. At bare minimum, realize that urban soils lack carbon, need to add, exact form is debatable.
How to get more organic matter into soil, how simulate underground storage riparian areas?
 - a. Grasses have shallow roots
 - b. Mature bottomland forests have deeper roots, deeper carbon
 - c. How to get to good carbon bank in soil? Keep wood in channel and RZ.
- 12. Alternative faunal indicators of success?
 - a. Butterflies, birds, obligate habitat specialists
- 13. few contractors know about good practices, clearinghouse for contractors
- 14. sustainable sites initiative as possible clearinghouse for methods
- 15. data.austin.org has soil data, available