COMPOST TEA

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Overview

- What is compost tea?
- Benefits
- Terminology
- Research status
- Technology/equipment
- Inputs

- Processing
- Application
- Markets
- Examples
- Conclusion
What is Compost Tea?

A liquid extract of compost containing soluble plant nutrients, beneficial plant compounds and beneficial microorganisms.
Reported Benefits of Compost Tea

• Stimulates soil biological activity
• Improves soil structure
• Enhances overall plant health and vigor
• Disease suppression
• Reduced fungicide and fertilizer requirements
• Cost savings/potential revenue
Terminology

- Active vs. passive
- Aerated vs. nonaerated
- “Tea” vs. “Steepage”
Most published research pertains to non-aerated processes, but that is changing.
Evolution of Technology

- Passive steep
- Stirring action
- Recirculation
- Fine bubble diffusion
Stirring Action
Recirculation
Fine Bubble Diffusion
Aerated Compost Tea Systems

Provide optimum conditions for:

- Extraction and proliferation of beneficial aerobic microorganisms
- Extraction of soluble compounds
Basic Components of Aerated Compost Tea Systems

- Tank
- Mesh container/filter for compost
- Aeration system
Inputs for Making Aerated Compost

Tea

- Water
- Compost/vermicompost
- Supplemental food source
Inputs - Water

- Chlorine
- Salinity or other problems
- Temperature (70 degrees)
Inputs - Compost

- Source of organic matter, organisms and nutrients for extraction
- Quality is important (no universal standards yet)
- Vermicompost or blend
- 1 lb compost/5 gallons of water (varies)
Inputs - Supplemental Food Sources - Catalyst

- To encourage proliferation of diverse, beneficial, aerobic microorganisms
- Humates, kelp, rock powders, fish products, complex carbohydrates, etc.
- Commercial formulations available
Processing Time

- 24 hours is common
- Aerated throughout process
- Should be used immediately or kept aerobic
Compost Tea Application

- Foliar application
- Soil application
Foliar Application

• Provides nutrition and beneficial microorganisms that colonize leaf surfaces
• Important in disease suppression
Soil Application

- Boosts biological activity in the soil and rhizosphere
- Direct physiological plant response
- Alternative to solid application
- Supplement to regular compost application
Application Methods
Application Methods
Application Methods
Compost Tea Markets

- Orchard 20%
- Vineyard 10%
- Other 5%
- Municipal 5%
- Turf 15%
- Horticulture 5%
- Agriculture 40%
Retail - Composters, Nurseries
Retail

- Nurseries, garden centers, retail composters
- Combined with workshops
- $3-5/gallon
Golf Courses
Vineyards
Landscaping & Lawn Care
• Growing market for organic lawn care
• Water quality issues, e.g. “Soils for Salmon”
• Alternative to persistent herbicides!!!
Nursery/Greenhouse Production
Hydromulch
Erosion Control
Conclusion

• Market is strong
• Lots of anecdotal information
• Need more experimental data to validate
• Potential for misinformation
• Synergistic with composters
• Market niche opportunities
• Quality assessment issues to be resolved (compost, tea, food resources)
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<td><strong>COMPOST TEA INDUSTRY ASSOCIATION</strong></td>
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<td><strong>ATTRA</strong></td>
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<td>Div. of Pollution Prevention &amp; Environmental Assistance</td>
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<td><a href="http://www.p2pays.org">www.p2pays.org</a></td>
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<tr>
<td><strong>Carolina Compost Council &amp; Carolina Recycling Association</strong></td>
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<tr>
<td>P.O. Box 1578</td>
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<td>Pittsboro, NC 27312</td>
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