



Benton Soil and Water Conservation District

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Field Sample Techniques

PHS Compost Team 11Mar06

Project Goal: Determine if organic feedstocks from municipal and agriculture waste streams (leaves, beef barn waste, chicken manure) can be recycled into a usable product.

Sampling field day objectives:

Develop project calendar – new pile coming! 10 – 14 weeks of sampling

Written agreements – John will create a student agreement

Design a sampling protocol basic on the following concepts:

- Determine the number of samples to be collected on each sampling day
- Collect samples that represent the entire compost windrow
- Discuss windrow construction and function
- Discuss homogeneity and assessment of windrow (aspect, climate, topography)
- Determine where in the windrow the samples will be taken
- Design an easy, consistent system for dividing the windrow
- Discuss the importance of random samples
- Discuss random number generator <http://www.random.org/nform.html>

Demonstration of sampling technique

- Mix and quarter technique
 - Bucket – bleached
 - Trowel – bleached
 - Black garbage bags – pre-cut
 - Zip lock bags – pre-labeled
- Importance of sterile technique
 - Consider pathogens and their presence in the environment
 - Number of samples versus sterile tools
 - Tool maintenance
 - Person hygiene
- Sample handling and flowchart
 - Research needs for leachate and/or compost samples
- Temperature – four thermometers
- Log sheets

What did I forget?

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The Benton SWCD mission is to provide leadership to Benton County residents through education and technical assistance for the conservation and responsible use of soil, water and related resources through a balanced, cooperative program that protects, restores and improves those resources.