

COMPOST SAMPLING AND TESTING METHODS



Marketing Dairy Compost Project

**Cecilia Gerngross
Mark McFarland**

Dairy Compost Quality

- ◆ Different from typical composts – high bulk density
- ◆ High inorganic content (mostly sand)
- ◆ High levels of calcium carbonate
- ◆ High pH levels
- ◆ **Varies in quality and consistency**
 - ◆ Standards to be developed to distinguish between the types of materials



Aged Material



- ◆ Early stages of DMES
 - ◆ Collection of aged manure at dairies
 - ◆ Poor manure collection practices
 - ◆ Poor compost production practices

- ◆ “Organic Soil”
 - ◆ Inorganic contamination (primarily sand or rocks)
 - ◆ Does not meet current TxDOT standards



Improved Material - Compost

- ◆ “Compost”
 - ◆ Composters are more particular in accepting manure
 - ◆ Improved production practices – training, experience
 - ◆ Better equipment – scarabs, screens, etc.





TEST THE MATERIAL!



Sampling Methods

- ◆ Generic sampling
 - ◆ Finished material
 - ◆ Representative sample
 - ◆ Preferably screened
- ◆ TMECC sampling
 - ◆ More detailed
 - ◆ See “Compost Sampling Guideline”



Testing Laboratories

- ◆ Current testing options
 - ◆ Texas Cooperative Extension Soil, Plant and Forage Testing Laboratory
 - ◆ Tarleton State University Laboratory
 - ◆ Gulf Coast Waste Disposal Authority Laboratory (STA certified)



TMECC Program

- ◆ Test Methods for the Examination of Composting and Compost (TMECC)
 - ◆ Developed by US Composting Council
 - ◆ Host of laboratory methods for all of the biological, chemical and physical properties of compost
 - ◆ Designed to test in process material too
 - ◆ Provides standard analyses to allow for comparison of analytical results



STA Program

- ◆ Seal of Testing Assurance (STA)
 - ◆ Developed by US Composting Council
 - ◆ Utilizes TMECC methods to certify a material
 - ◆ Promotes a consistent labeling of contents
 - ◆ Offers promotional literature, end use materials, etc. to participants
 - ◆ Costly to compost facility to participate (~\$350 per sample)
 - ◆ Currently utilized for TxDOT specs



TCE SWFTL

- ◆ Developing new submittal form and report form
- ◆ Developing a new suite of tests to evaluate compost
- ◆ Test methods will follow TMECC protocol
- ◆ Methods designed to evaluate the agronomic value
- ◆ Price - \$45 to \$60



More Information...

<http://compost.tamu.edu>

