



Rushern L. Baker, III
County Executive



Incorporating Food Scraps into Prince George's County's Yard Waste Compost Facility

*6601 S.E. Crain Highway
Upper Marlboro, Maryland 20772*



MARYLAND ENVIRONMENTAL SERVICE

Site Overview

- ▶ For more than 23 years Prince George's County has owned and managed the Western Branch Composting Facility
- ▶ The facility is operated by the Maryland Environmental Service (MES), through an intergovernmental agreement with Prince George's County
- ▶ MES turns yard waste, including grass clippings, leaves, brush, small branches and Christmas trees into a trademarked product called Leafgro®.

- ▶ Private and County contractors deliver yard waste to the facility
- ▶ Approximately 165,000 households receive yard waste curbside collection by County contracted haulers
- ▶ Nearly 60,000 tons of yard waste is processed annually
- ▶ 2,000 tons of food scraps have now been received and processed as of May 2013



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Our Current Composting Process– Open Windrows (yard waste only)

- ▶ Incoming yard waste is processed through a horizontal grinder and placed into windrows
- ▶ Windrows are turned using a Scarab windrow turner and watered as needed
- ▶ Compost is spread out on the pad for drying until ready to be screened
- ▶ Final screened compost is marketed as Leafgro®
- ▶ The process takes roughly 6 to 9 months depending on weather conditions





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Food Scrap Composting Demonstration Project





- This system of composting has obvious benefits
 - It allows the County to accept food scraps for composting
 - Prevents outside weather conditions to be factored out
 - Uses less space than open windrowing
 - Takes less time to produce finished compost product
 - The covers eliminate the odors generally associated with food waste
 - It creates landfill longevity by diverting materials to composting rather than landfill disposal
 - Cost effective for customers – tip fee is much less than landfill tip fee

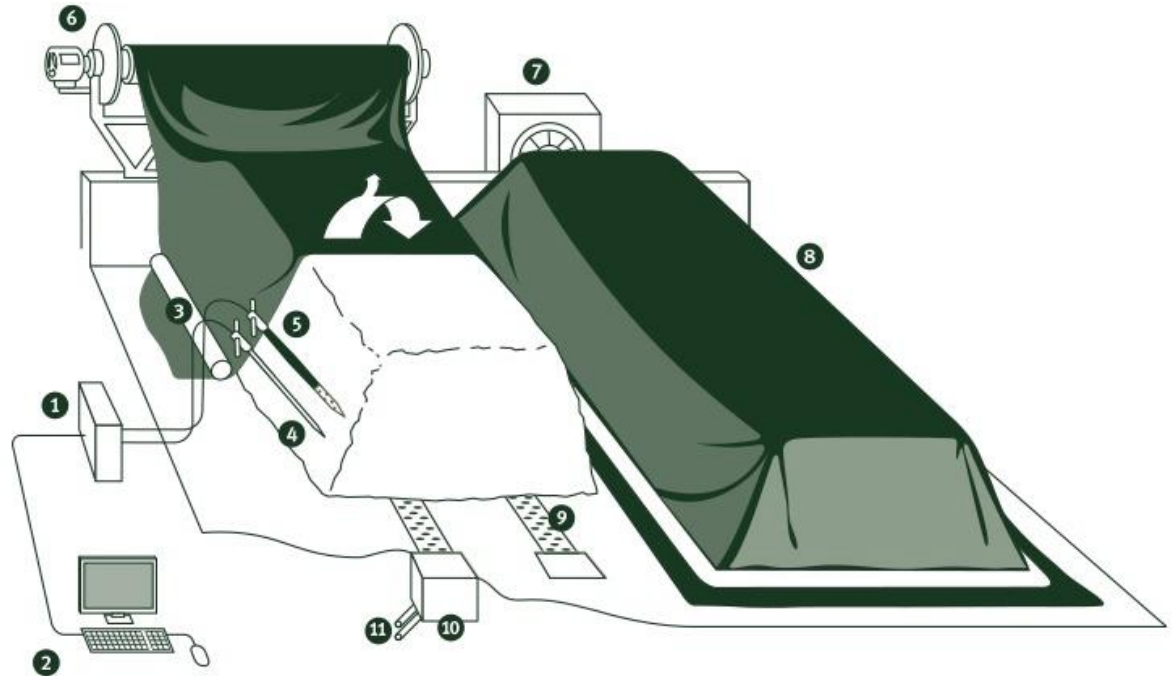


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Gore® Cover System



- 1 Control system
- 2 PC
- 3 Rim weight
- 4 Temperature sensor
- 5 Oxygen sensor
- 6 Cover handling device
- 7 Aeration fan
- 8 GORE® Cover
- 9 Aeration and leachate system
- 10 Water trap
- 11 Leachate pipe



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Proposed Batch Schedule

	Start Date	End Date	Heap 1	Heap 2	Heap 3	Food Waste	Green Waste
Batch 1	May 15	July 10	Green Waste	Green Waste	Green Waste	0 tons	750 tons
Batch 2	Jul 15	Sept 11	Green Waste	Food Waste 10%	Food Waste 10%	50 tons	700 tons
Batch 3	Sept 17	Nov 13	Green Waste	Food Waste 25%	Food Waste 25%	125 tons	625 tons
Batch 4	Nov 19	Jan 15	Green Waste	Food Waste 50%	Food Waste 50%	250 tons	500 tons
Batch 5	Jan 20	Mar 13	25%/25%/50%	25/25/5 0	25/25/5 0	-	-
Batch 6	Mar 17	Apr 21	Leafgro GOLD Blend	Leafgro GOLD Blend	Leafgro GOLD Blend	-	-



Food Scrap Demonstration Pilot Project Customers

- ▶ University of Maryland
- ▶ University Park
- ▶ Apple Valley
- ▶ Progressive Waste Solutions
- ▶ Compost Crew
- ▶ City of Takoma Park



Partnerships:

Maryland Environmental Service (MES)

Sustainable Solutions

GORE™

University of Maryland

University Park

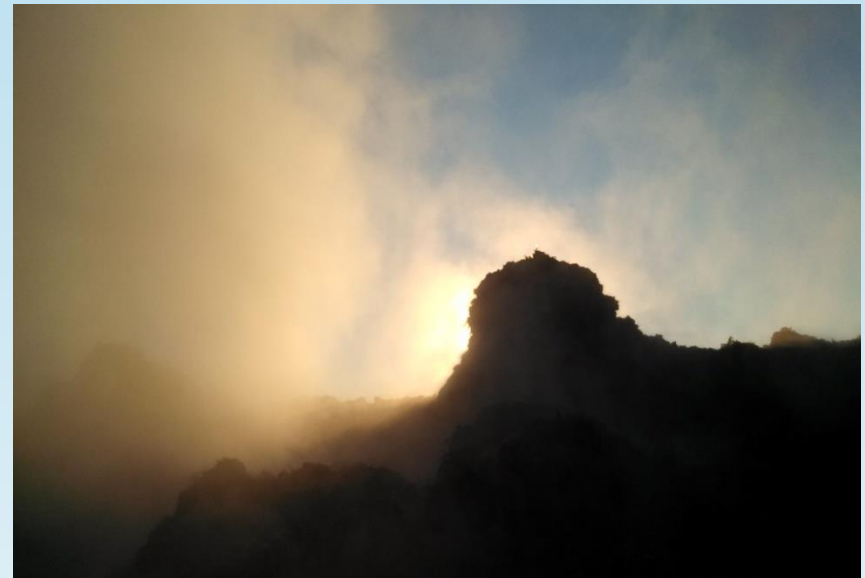
EPA – *potentially*

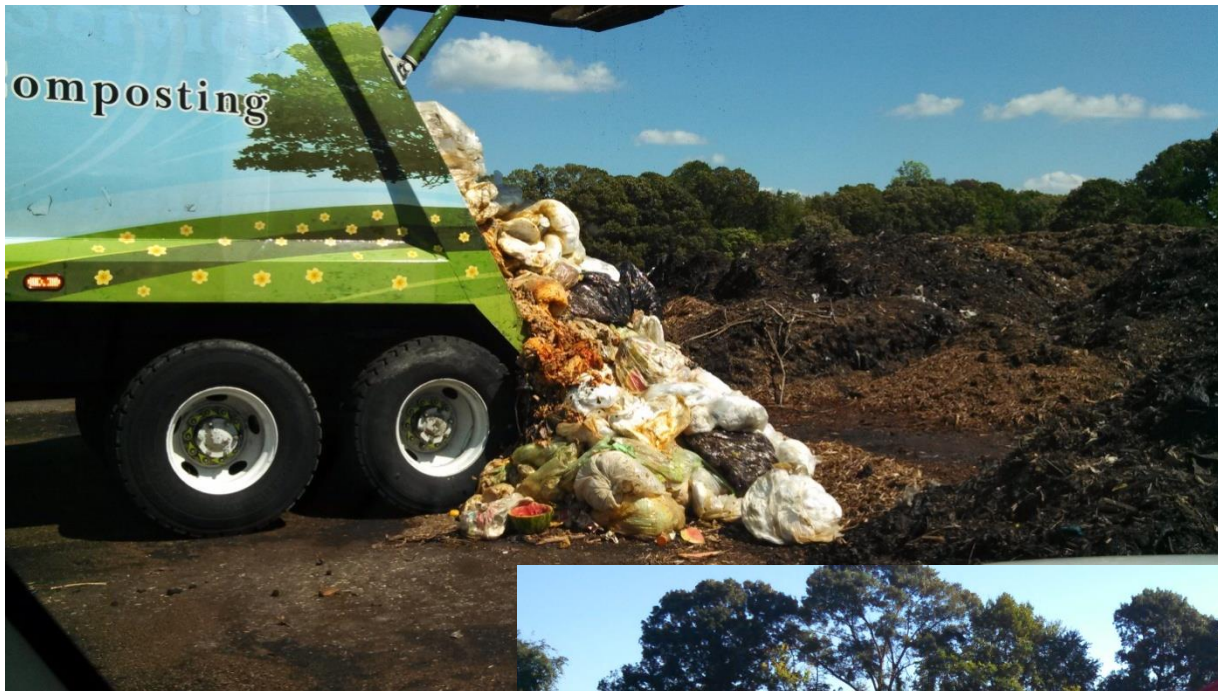
Permitting:

Maryland Department of the Environment (MDE)

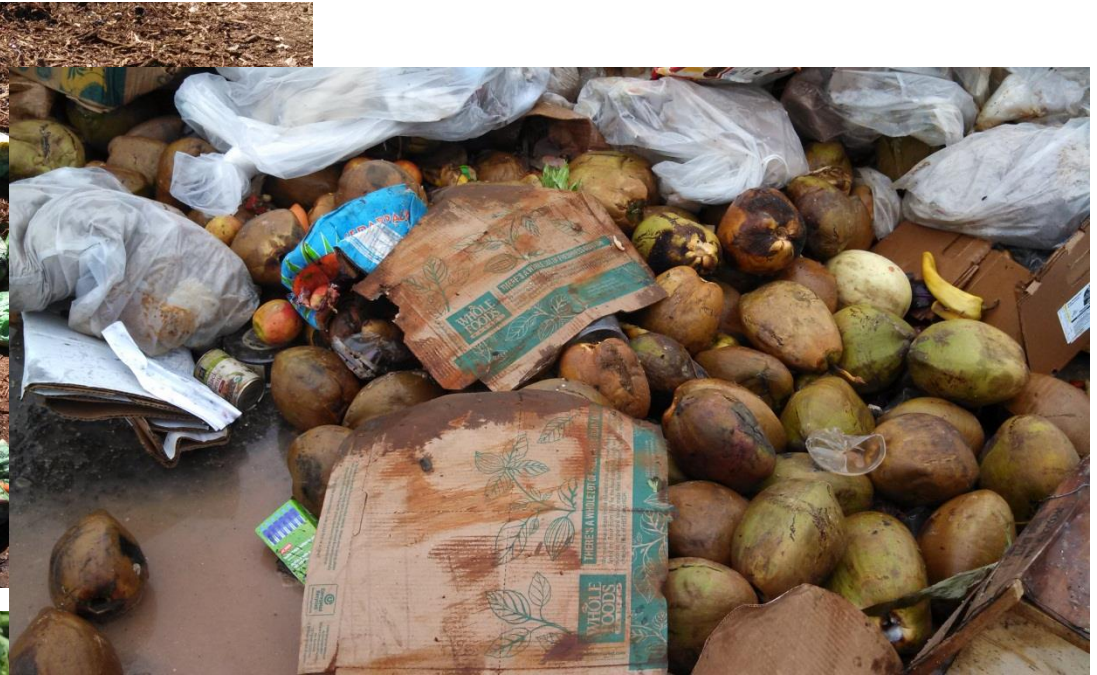
Getting the Good stuff!!!

- ▶ Quality Compost starts with quality ingredients.
- ▶ Less contaminants per load was encouraged and is now enforced.
- ▶ Plastic??? Yes, only to compostable bagging products.

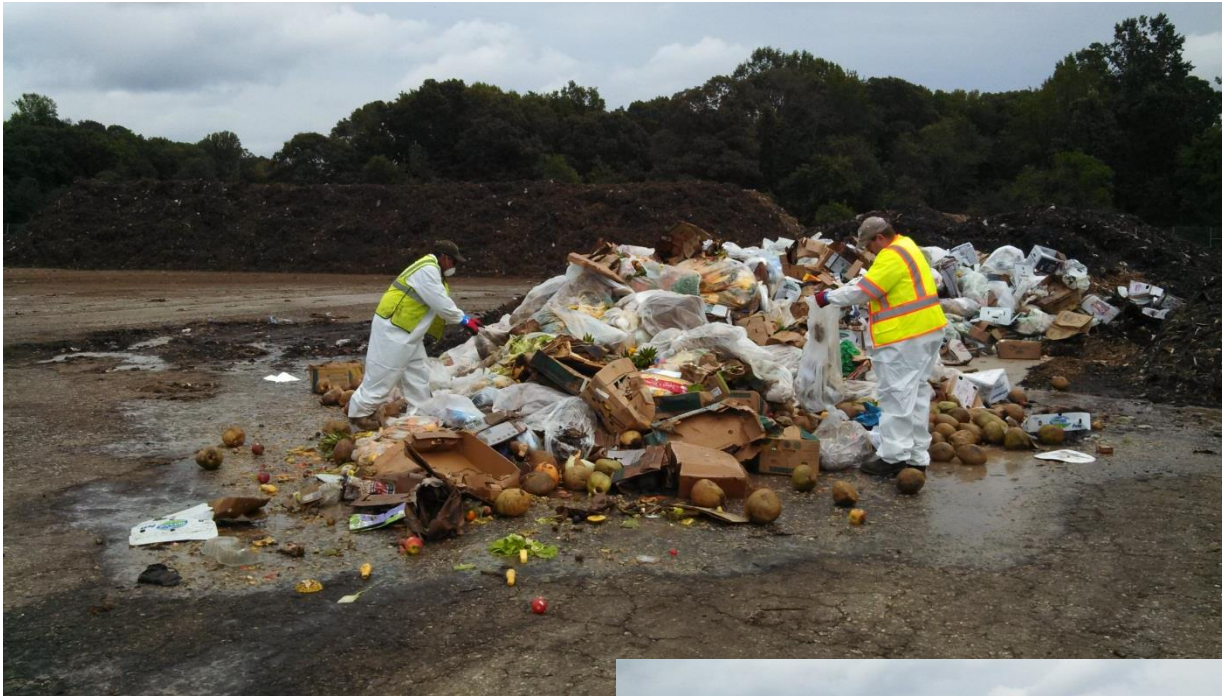




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- ▶ Contaminates are removed by hand and any remaining minor contaminants are ground via the horizontal grinder and removed during the screening process.



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Build it and it will Compost!



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Placing the Gore® Cover over a heap



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GORE® Cover and Perimeter Weighting System



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Covered Heaps



The heaps are monitored for temperature and moisture daily using a computerized system.



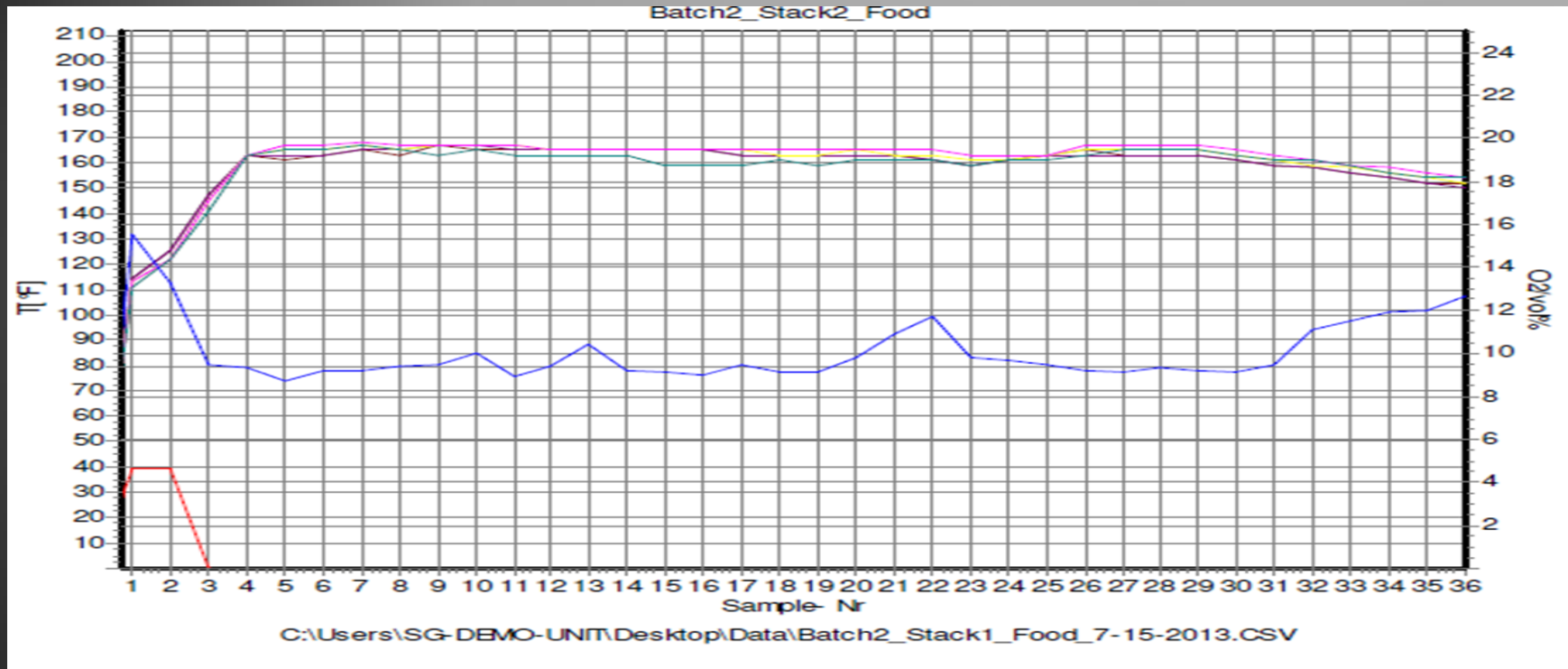
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Blower/Aeration and Control Box

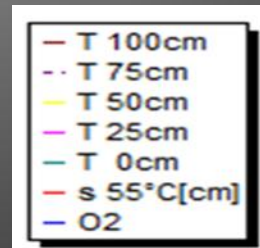


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Example of Phase #1 (4 weeks)

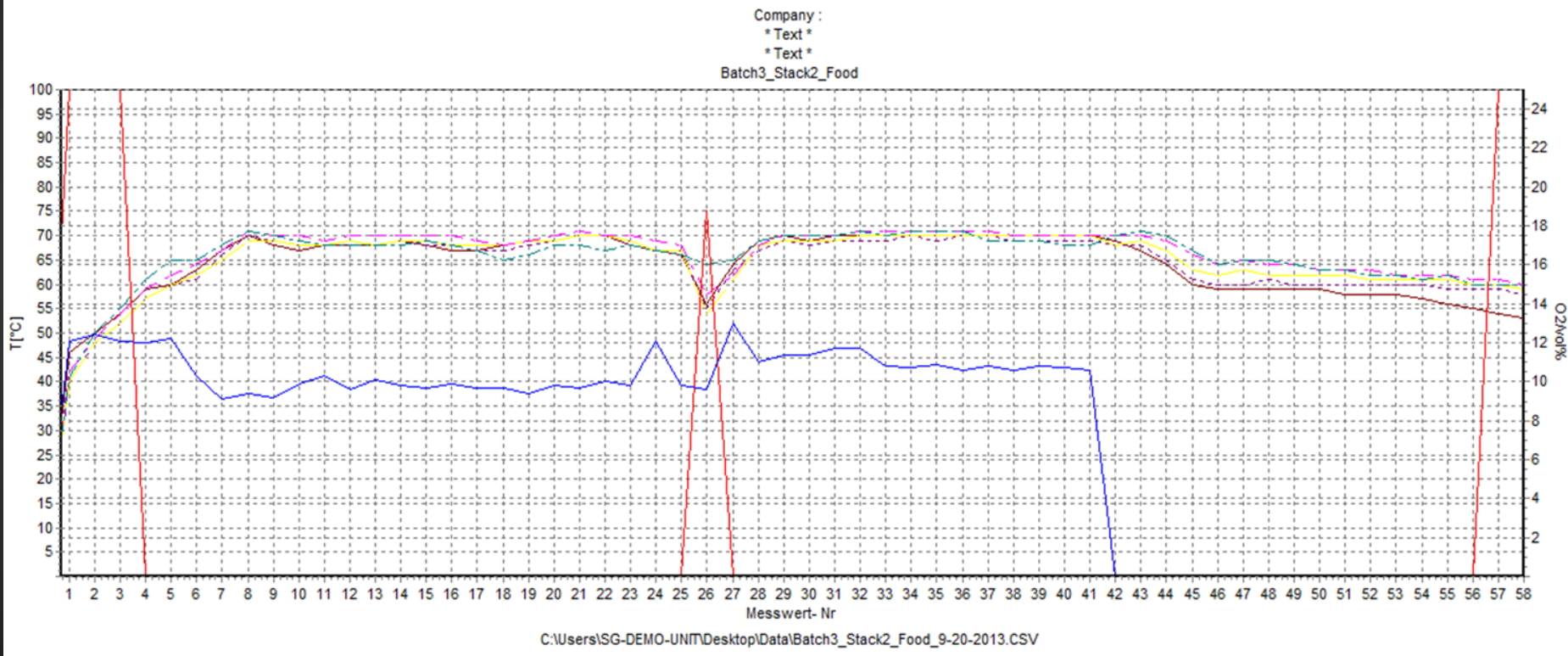


34 day > 131° F → PFRP & VAR are met!



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Example of Complete Process



Uncontrollable Factors

- ▶ Weather...



No problem!



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Uncontrollable Factors

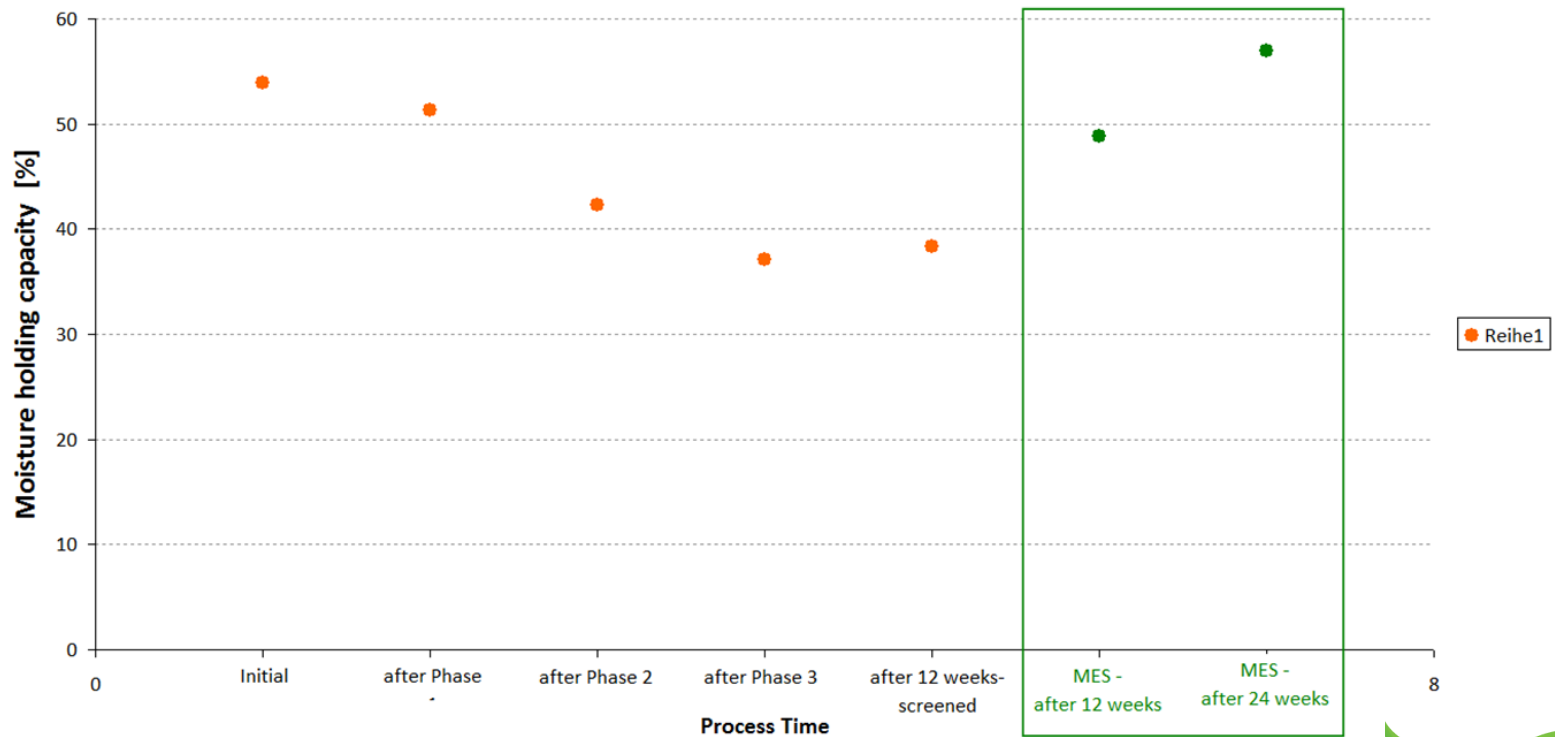
- ▶ Weather...



No problem!

Controlling Moisture Over Time

100% GW - Moisture Reduction in the GORE Cover Process compared to open windrow



And then there are “those days”...



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Accidents...or lessons?



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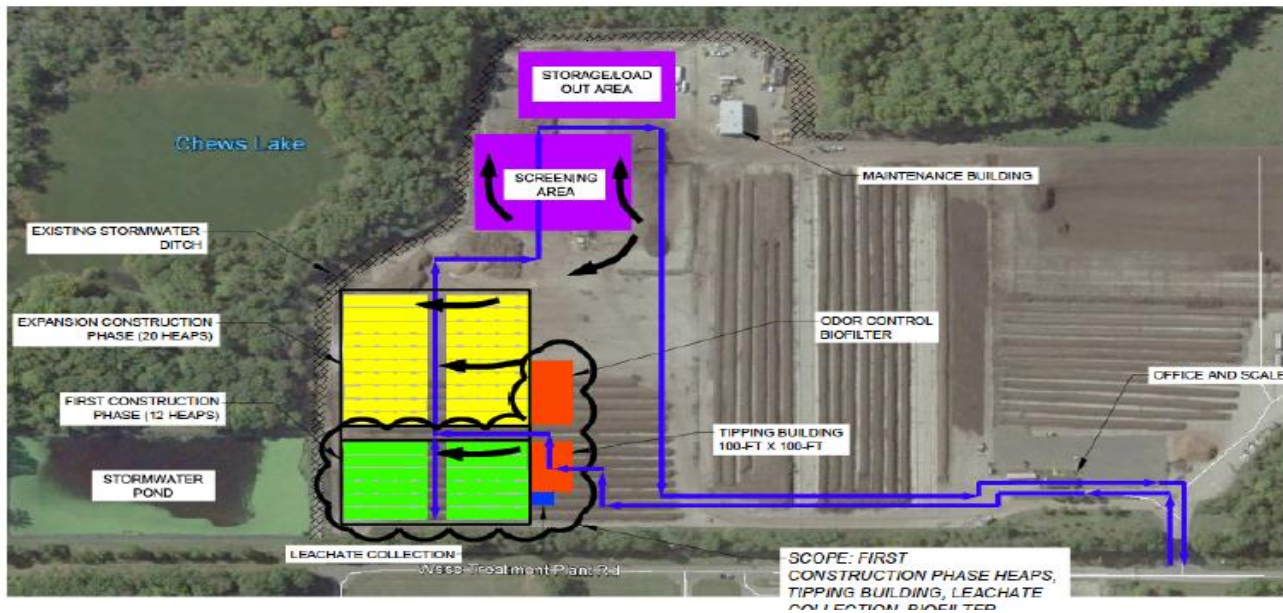
Green is the New Brown is the New Green!



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What's Next? Potential Future

Prince George's County **Organic** Composting Facility



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