Rules and Tools to Increase Food Scraps Recycling in Ohio

Angel Arroyo-Rodríguez, RS, AICP

2017 Ohio Food Waste Collaborative Conference

Columbus | September 15, 2017



Group Discussion

- Upcoming composting rules changes
 - Feedback

- Ohio Materials Marketplace
 - Ideas for food waste reduction & diversion



- 65 days jurisdiction
- 9/29/17 File as "proposed"
- Days 31-45 Public hearing
- Day 66 First day to file as "final" effective date as soon as 10 days
- If changes re-file as proposed / 30 day jurisdiction

Rule Goals

Allow more materials

Simplify authorizing processes

Add value to industry

Balanced protection and economic development



Definition

"Food scraps" means food residuals including but not limited to unprocessed and processed vegetables, fruits, grains, dairy products, meats, and other residuals from food intended for human or animal consumption, and the any compostable packaging containers or compostable serviceware that may be are commingled with the food scraps.



Definition

"Yard waste" means solid waste that includes only leaves; grass clippings; brush, garden waste,; tree trunks,; tree stumps, holiday trees; prunings from trees or shrubs; any plant materials from residential trees and residential edible gardens; decorative plant materials including but not limited to pumpkins, gourds, hay bales, straw bales, holiday trees, and vegetative waste resulting from the use of commercial products, including but not limited to discarded flowers, potted flowers, wreaths, or grave blankets that do not include plastic, metal, Styrofoam polystyrene, or other non-biodegradable noncompostable material. Yard waste does not include wastes materials from industrial processing, agricultural processing, or food processing.

Organics

Recycling

Definition

• "Additive" means a supplemental material mixed with or otherwise added to feedstocks and bulking agents to create a favorable condition for the composting process and includes urea, crushed egg shells, earthworms, source-separated spent coffee and tea grounds, and bacterial or fungal inoculum.



Ohio's <500 sq.ft. Exclusion

- Any person, any source, use anywhere
- Yard waste, animal waste, food scraps, bulking agents & additives
- No nuisances & health hazards
- No surface & ground water pollution



Vermicomposting

Means the biological treatment of solid wastes by epigeic earthworm species which turn, fragment, aerate and increase microbial activity in the solid waste substrate, and results in vermicompost.





Why Include It?

Increased interest as local management option

Legitimize operations

Quality standards (product)

VERMICOMPOST



Acidic Anaerobic Fermentation

Means a treatment method in which compostable materials are inoculated with an effective microorganism (EM) inoculum and placed in sealed containers for a length of time sufficient for fermentation to occur under anaerobic conditions and promote acidification of the compostable material.



Authorized Materials

MATERIAL	CLASS I	CLASS II	CLASS III	CLASS IV
Bulking agents	Υ	Υ	Υ	Υ
Additives	Υ	Υ	Υ	γ*
Yard waste	Y	Y	Y	Y
Agricultural plant material	Y	Υ	Y	Y
Animal waste	Y	Y	Y	
Dead animals	Y	Υ	Y	
Raw rendering material	Y	Y	Y	
MSW	Y			
Alternative materials	Y	Y	Y	Y

Y = new

^{*}Except eggshells

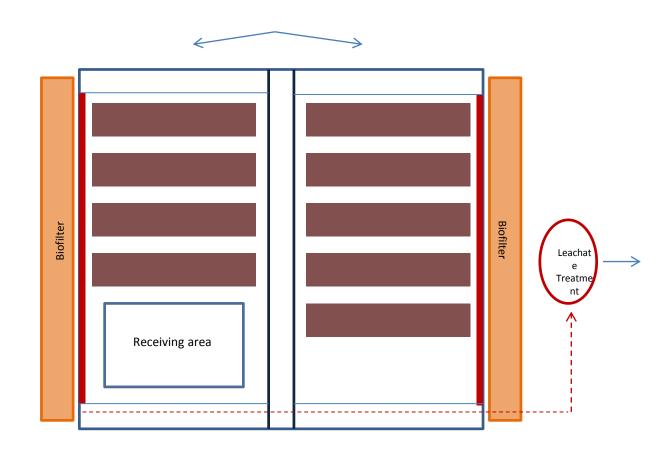
Financial Assurance (Class II)

- \$2.50/yd³
- \$8/yd³ alternative materials
- ≤ \$5,500 not required
 - 2,200 yd³ with no FA!
- Can be based on operational capacity(vs. design capacity)

 Can request calculation at a lower amount upon demonstration lower cost is feasible

Design & Construction Rules

- Aim to be proactive
- Emphasize initial facility design
- Anticipate needs
- Plan for the long term



Definitions

- "Runoff" means precipitation that has fallen onto the composting facility and storm water as defined in Rule 3745-39-01 of the Administrative Code that has not come in contact with any compost products, solid wastes, feedstocks, bulking agents, or additives.
 - "Storm water" means storm water runoff, snow melt runoff and surface runoff and drainage. (OAC 3745-39-01)
- "Run-on" means precipitation that has fallen upslope of the materials placement area of a composting facility and flows onto the composting facility.
- "Leachate" means liquid that has come in contact with or been released from solid waste
- "Liquid industrial waste" is inferred to mean "... liquid waste resulting from any process of industry, manufacture, trade, or business or development of any natural resource..."

- (A) Facility design and construction. The composting facility shall be designed and constructed to meet the following:
 - (1) The land surface of the materials placement area shall have a slope greater than or equal to one per cent and less than or equal to six per cent so as to direct surface water to collection points or otherwise control the surface water drainage.
 - (2) Prevent run-on from reaching the materials placement area.
 - (3) Prevent ponding and erosion.
 - (4) Minimize the potential impact to surface water and ground water.
 - (5) Collect and contain leachate within the boundary of the composting facility and prevent leachate from discharging to waters of the state, unless the discharge is authorized pursuant to Chapter 6111. of the Revised Code.
 - (6) Construction of the materials placement area to allow facility operation during inclement weather.
 - (7) Construction of roads within the facility boundary to allow for passage of vehicles at all times.
 - (4) Construction of any planned leachate and surface water management structures.
 - (5) Signs are posted in accordance with rule 3745-560-X10 of the Administrative Code.



Thanks!

Ángel Arroyo-Rodríguez, RS, AICP

Program Leader

Composting | Organics Recycling | Infectious Waste

Division of Materials and Waste Manaagement

Ohio EPA

angel.arroyo-rodriguez@epa.ohio.gov

614-728-5336

