



North Carolina Compost Regulations

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Key Points

- Protection of public health and the environment (setbacks, groundwater, surface water)
- Process to further reduce pathogens (PFRP) 131 degrees F (15 days or 3 days)
- Vector attraction reduction (VAR) >113 degrees
- Minimize public nuisance (odor, dust)

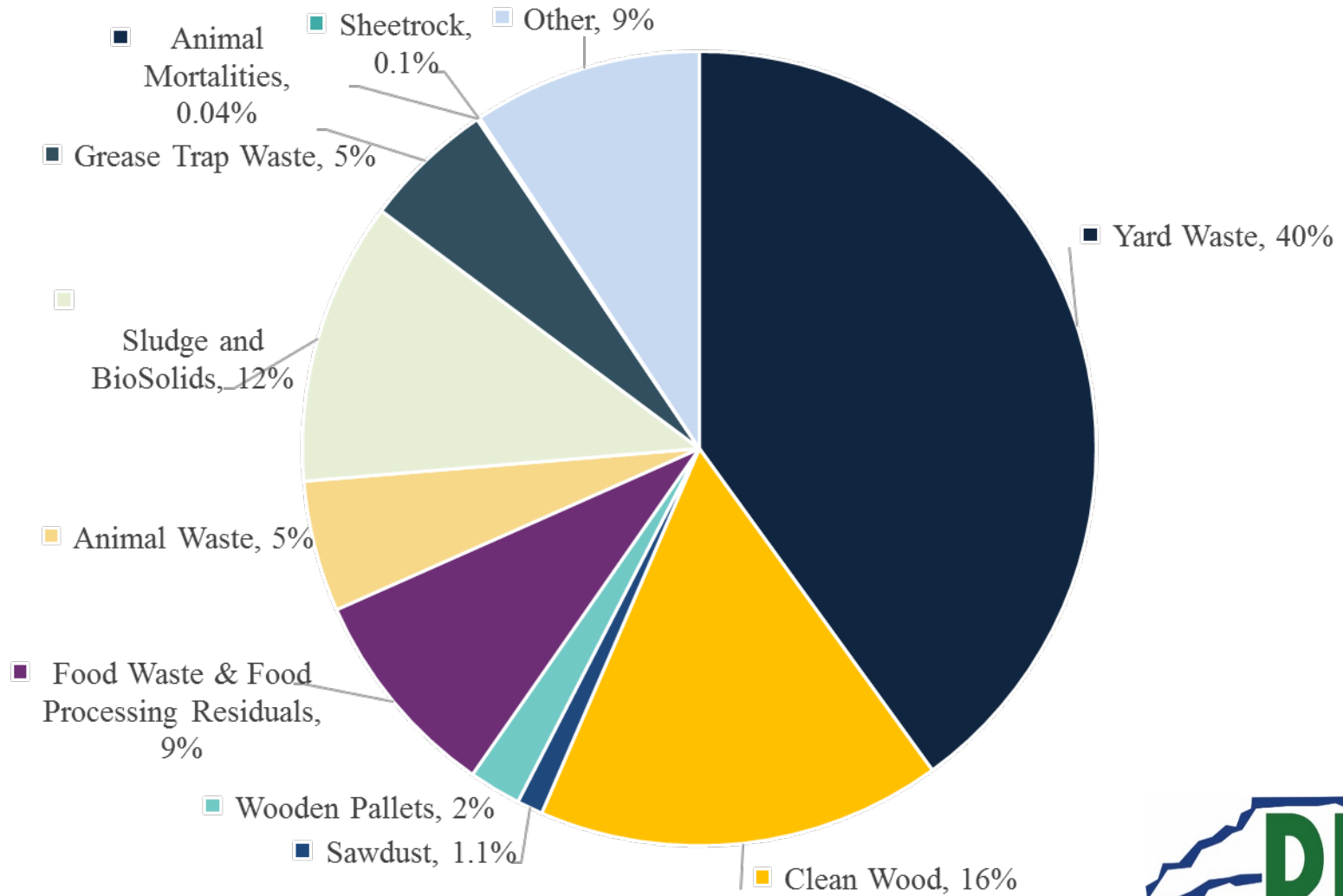
North Carolina Compost Rules

- North Carolina's solid waste policy reflects the state's desire to reduce, reuse and recycle before turning to disposal as a management option for solid waste.
- N.C. Compost rules can be found in NCGS .1401 et seq – called the 1400 Rules
- We have been going through rule review over the last 2 years and are proposing changes. More on this at the end of these slides.

North Carolina Compost Rules

- The Compost Rules are on our website:
<http://deq.nc.gov/about/divisions/waste-management/solid-waste-section/composting>
- The website also has links to:
 - Permit application guidance
 - Compost demonstration guidance
 - Testing facilities for analysis
 - Guidance for special cases – composting at residential and summer camps, and composting for urban farms and community gardens

Feedstocks Composted or Mulched FY 2014/2015



North Carolina Facility Types

- Full permit
 - Type 1
 - Type 2
 - Type 3
 - Type 4
- Small and large
- Operations not requiring a permit
 - Yard waste notification
 - Compost demonstrations

Small vs. Large Facilities

- Small facilities
 - Receive less than 1,000 cubic yards of material for composting per quarter (with one exception).
 - AND occupy less than 2 acres of land.
- Large facilities
 - Receive 1,000 cubic yards or more of material for composting per quarter.
 - OR occupy 2 acres or more of land.

Type 1 Facility

- May receive:
 - Yard and garden waste
 - Land clearing waste
 - Untreated and unpainted wood waste

Type 1 Facility

- Small Type 1
 - Processes or stores less than 6,000 cubic yards of material per quarter.
- Large Type 1
 - Processes or stores more than 6,000 cubic yards of material per quarter.
- These two types are exceptions to the small and large facility definition.



Small Type 1



Large Type 1

Type 1 Feedstocks



Yard/Garden Waste



Leaves/Brush



Land clearing debris
(Silviculture waste)



Unpainted, Clean Wood Waste

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Small Type 1 – “Notified Site”

- Yard Waste Notified Sites (YWN) are < 2 acres, <6,000 cubic yards per quarter. Permit not required. Applicant is required to submit a notification to the section, that includes:
 - Facility location
 - Name, address, phone number
 - Type and amount of wastes received
 - Composting process
 - Intended distribution of finished product

Small Type 1, continued

- Must meet the same operational and setback requirements of permitted sites (Rules .1404 and .1406)
- Yard waste containing grass, leaves and brush must be composted to kill pathogens and reduce insecticides/pesticides.
- Sites taking only land clearing debris do not have to compost.
- 131 degrees or above for 3 days and aerated to maintain elevated temperatures.
- Operation must be in accordance with other state and local laws, ordinances, rules and regulations.
- Cannot be located over a closed disposal site

Setbacks for Type 1 Facilities

- 100 year floodplain (not within)
- 50 feet to the property line
- 200 feet to residences
- 100 feet to wells
- 50 feet to perennial streams/rivers
- 25 feet to berms or ditches
- Groundwater – Must be at least 12 inches above seasonal high groundwater table



Type 2 Facility

- May receive:
 - Pre-consumer meat-free food processing waste
 - Vegetative agricultural waste
 - Source separated paper
 - Other source separated specialty waste

Type 2 Facility

- Source separated wastes must be low in pathogens (bacteria) and physical contaminants
- Waste composted at a Type 1 Facility can be composted at a Type 2 Facility

Type 2 Feedstocks



Yard & garden waste



Pre-consumer, meat free food waste



Source separated paper



Type 3 Facility

- May receive:
 - Manure
 - Agricultural waste
 - Meat
 - Post-consumer source-separated food wastes
 - Similar source separated wastes

Type 3 Facility

- Acceptable wastes are relatively low in physical contaminants, but may have high levels of pathogens.
- Waste acceptable for a Type 1 or 2 facility may be composted at a Type 3 facility.

Type 3 Facilities

Wallace Farm



Caledonia



Rose Acre



Craven Ag

Type 4 Facility

May receive:

- Municipal wastewater treatment sludges*
- Industrial solid waste sludges*
- Industrial solid waste*

*Each waste source must have analysis approved by our office

Type 4 Facility

- Industrial sludge and industrial waste are only acceptable if they function as a nutrient source or if they are compostable organic waste.
- Waste acceptable at Type 1, 2, 3 Facilities are accepted at Type 4 Facilities.

Type 4 Facility



McGill – Merry Oaks



Setbacks for Type 3 and 4 Facilities

- 100 year floodplain (not within)
- 100 feet to the property line
- 500 feet to residences (200 feet for small type 3)
- 100 feet to wells
- 50 feet to perennial streams/rivers
- 25 feet to berms or ditches
- Type 3 - Groundwater – Must be at least 24 inches above seasonal high groundwater table
- Type 4 – Concrete or asphalt pad



Compost Pilots/Demos

- Allowed in the Compost Rules, see 15A NCAC 13B .1409 (b).
- For first time compost operators, we recommend applying for a compost demo, instead of a full permit. The application process is easier because a permit is not required, but an approval is required.
- Must be less than 2 acres, and approvals are usually 1 year, but may be extended to 2 years.
- Application is outlined in the Compost Pilots and Demo Guide, on our website.



No Permit Required

- Backyard composting - On-site composting of yard waste from residential property by the owner or tenant for non-commercial use.
- Farming and land clearing (silvicultural) operations where the compost produced from materials grown on the owners land are reused on the owners land.
- Small Type 1 Facilities that use a Notification Form.



Getting Inspected



Inspections

- Setbacks
- Feedstock locations
- Compost areas
- Runoff control
- Records
- Size of area
- Odors



Proposed changes to the Rules

- Clarifying language that is confusing
- Proposing new permit-by-rule for small food waste compost facilities, max 100 cubic yards onsite at any time
- Adding rules for vermicomposting and anaerobic digesters
- Adding requirement that compost operators receive training
- Requiring more detailed planning for odor control and planning for odor response
- Increasing permit term from 5 years to 10 years

Note - This is a description of the proposed Rules, and may not reflect the final approved Rules

Proposed changes to the Rules

- Public notice and comment is expected to be solicited this summer
- New rules will be in effect, if all goes well, by November 1, 2019

The End

Questions?

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