Lesson 5: Sources and Types of Organic Materials

Learning Objectives:

■ Know the types and sources of organics materials that can be handled at registration facilities

■ Understand the typical physical, chemical, and biological characteristics of these materials
“Feedstocks” Are Organic Materials

- Feedstocks are the primary materials being composted at a site
- Types of feedstocks for registration facilities are:
  - Yard Trimmings (YT)
  - Food Waste (FW)
  - Vegetative Waste (VW) & Animal By-products (AB)
  - Manures (M)
Yard Trimmings

- **Generator Sources:**
  - Households
  - Landscapers & arborists
  - Storm debris
  - Land clearing debris companies

- **Types:**
  - Grass clippings
  - Leaves
  - Brush & Wood
Yard Trimmings
(continued)

Key Characteristics:

<table>
<thead>
<tr>
<th>Source</th>
<th>C:N Ratio %N</th>
<th>Moisture Content</th>
<th>Potential Contaminants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass Clippings</td>
<td>12-19:1</td>
<td>High</td>
<td>Plastic bags, Chemicals</td>
</tr>
<tr>
<td></td>
<td>2% - 4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaves</td>
<td>50-60:1</td>
<td>Low - Moderate</td>
<td>Plastic bags</td>
</tr>
<tr>
<td></td>
<td>&lt;1.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brush &amp; Wood</td>
<td>500-700:1</td>
<td>Low</td>
<td>Plastic bags, Metals</td>
</tr>
<tr>
<td></td>
<td>0.1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Types of Food Waste

Types:

- **Vegetative Waste (VW):**
  - Fruits, vegetables, grains, breads, etc.

- **Animal By-products (AB):**
  - Meat, fat, dairy, eggs, etc.

- **Pre-consumer Vegetative Waste:**
  - Vegetative waste that has not come in contact with the end user, such as, grocery stores, packing and canning operations, out-of-date items, and restaurant prep.
Sources of Food Waste

Sources:

- Grocery stores (excluding AB from butcher shops)
- Restaurants
- Institutional kitchens
- Food processors & manufacturers (excluding animal by-products from manufacturing or packaging plants, abattoirs, and butcher shops)
Food Waste
(continued)

Key Characteristics:

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</thead>
<tbody>
<tr>
<td></td>
<td>%N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-consumer Vegetative Waste</td>
<td>10 – 30:1</td>
<td>High</td>
<td>Plastics Non-degradable packaging</td>
</tr>
<tr>
<td></td>
<td>2% – 5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-consumer Vegetative Waste</td>
<td>10 – 30:1</td>
<td>High</td>
<td>Plastics Service ware Pathogens</td>
</tr>
<tr>
<td></td>
<td>2% – 5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal By-products</td>
<td>5 – 10:1</td>
<td>High</td>
<td>Plastics Non-degradable packaging Pathogens</td>
</tr>
<tr>
<td></td>
<td>5% - 10%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Manure

- **Sources**
  - Farms & feedlots
  - Horse stables
  - Zoos

- **Types**
  - Cow
  - Horse
  - Poultry
  - Other
## Manure (continued)

### Key Characteristics:

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<th>Moisture Content</th>
<th>Potential Contaminants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow</td>
<td>20:1 2%</td>
<td>High</td>
<td>Pathogens</td>
</tr>
<tr>
<td>Horse</td>
<td>25 – 30:1 2%</td>
<td>Moderate</td>
<td>Pathogens</td>
</tr>
<tr>
<td>Poultry</td>
<td>5 – 15:1 8%</td>
<td>Low – Moderate</td>
<td>Pathogens</td>
</tr>
</tbody>
</table>