

Clean Cooking and waste to energy



Lesson 7. Suitable Conditions for waste to energy installations

Francisco Cuadros, CEO, Metanogenia



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In this video you will learn:

- Main characteristics of ideal waste
 - Logistics issues
 - Social issues



1. MAIN CHARACTERISTICS OF IDEAL WASTE

Humidity:

- At least 50%. Ideal 80-90%
- Low humidity increases cost and low production rates

pH:

- Avoid acid/basic waste
- Optimal pH range: 6-8

Nutrients:

- High concentration nutrients are the best ones: C, N, S, P, Fe, etc.

Inhibitors:

- Avoid waste with heavy metals
- Avoid waste mixtured with detergents and disinfectants

Particle size:

- The smaller waste particle size, the better biogas productions are obtained

Steady conditions:

- Sudden changes in process conditions and substrate composition must be avoided

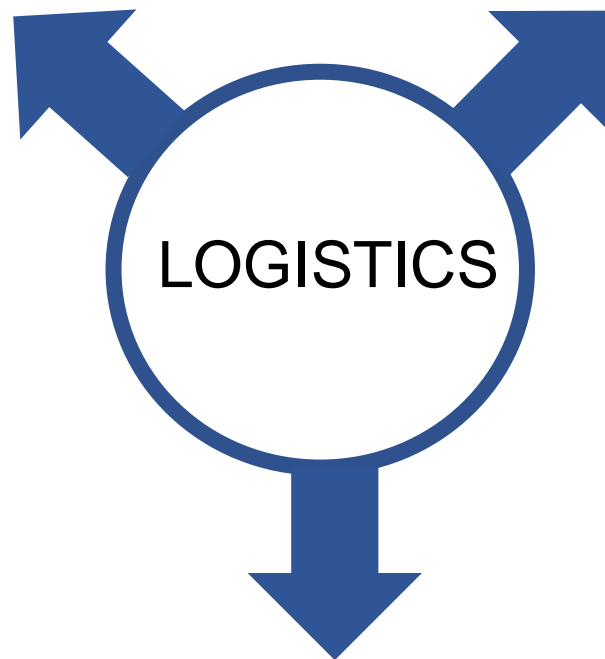
Waste mixtures:

- Exploiting the synergies of mixed waste
- Compensate for the deficiencies of waste separately
- Cushion temporary variations in composition and production of each waste separately.

2. LOGISTICS ISSUES

STABILITY

CLOSENESS



COOPERATIVE
COLLECTION



3. SOCIAL ISSUES

ACCESSIBILITY	HAZARD CONDITIONS	FINAL DESTINATION OF WASTE
<p>Waste must be located in easily accessible areas. This will allow a simpler and more stable biogas plant feed.</p> <p>Waste that is complex to collect is usually discarded over time.</p> <p>The better the accessibility, the more people and organizations can contribute to raise the volume of waste to be treated, and the higher gas production could be obtained.</p>	<p>The collection of waste must not suppose a danger to the people who carry out this task.</p> <p>Residues that are potential sources of infection must be avoided. If the use of hazardous waste is necessary, it's essential to collect and transport them with a mask and protective gloves. To avoid cuts, wounds and infections.</p> <p>It is very important to avoid ingesting these waste.</p>	<p>It is very important to avoid using residues that can be used in animal or human food.</p> <p>There are residues with a good biogas potential but, due to their conditions, they can be used as food after processing.</p>

THANK YOU

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