

Anaerobic Digestion

Systems and Processes

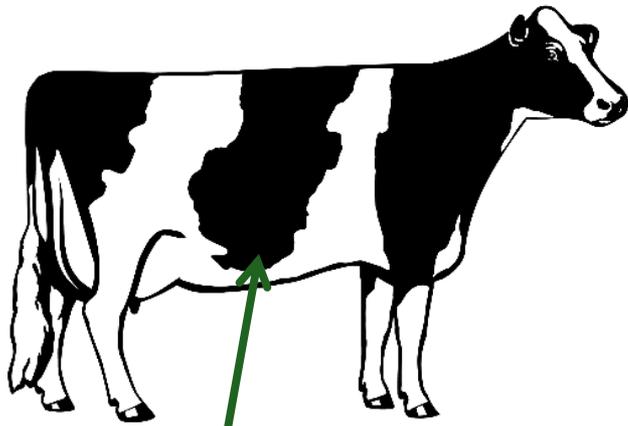


Presented By
James R. Miller
J.R. Miller & Associates | JRMA
jrmiller@jrma.com | www.jrma.com



ARCHITECTS
ENGINEERS
PLANNERS

Anaerobic Digestion



AD occurs here

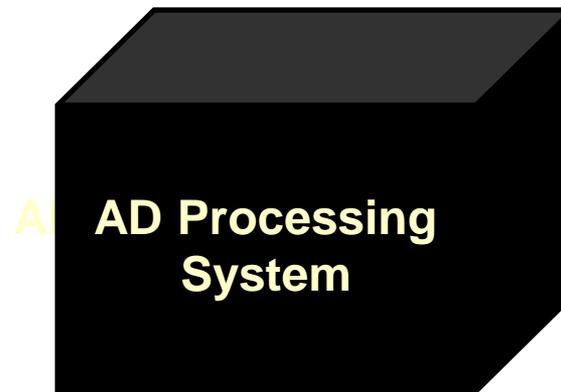
and here



and here



What is an AD System?

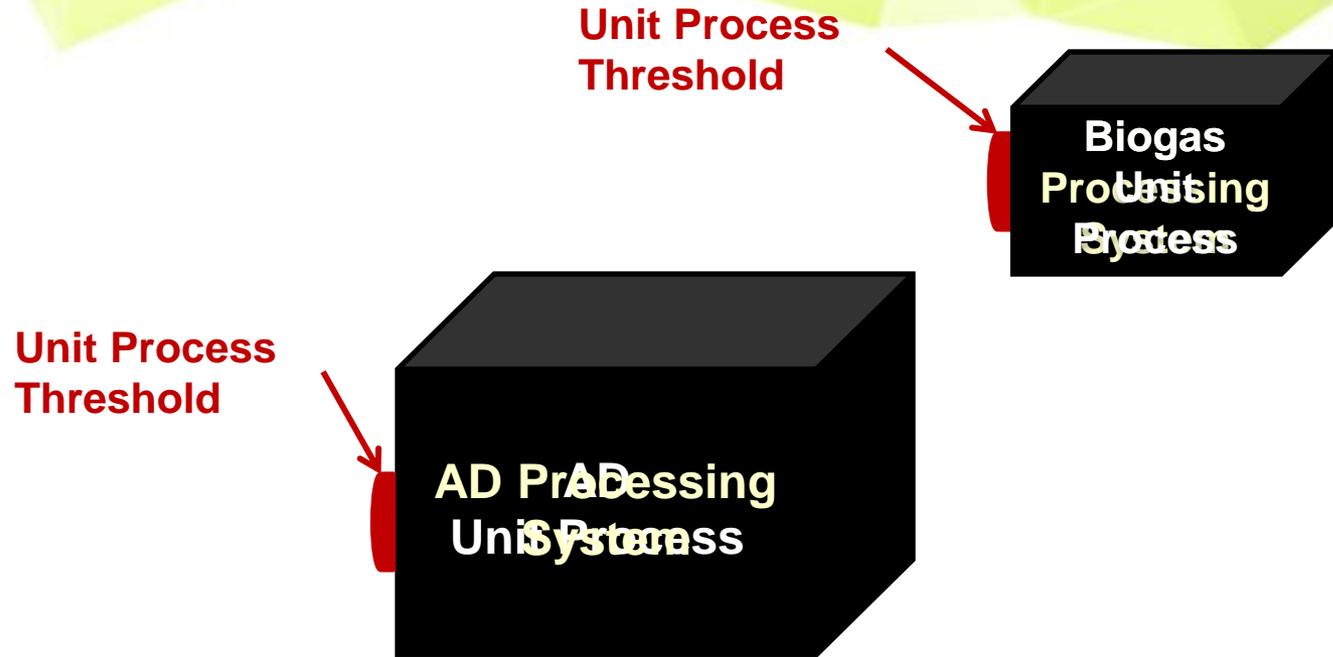


Designed to:

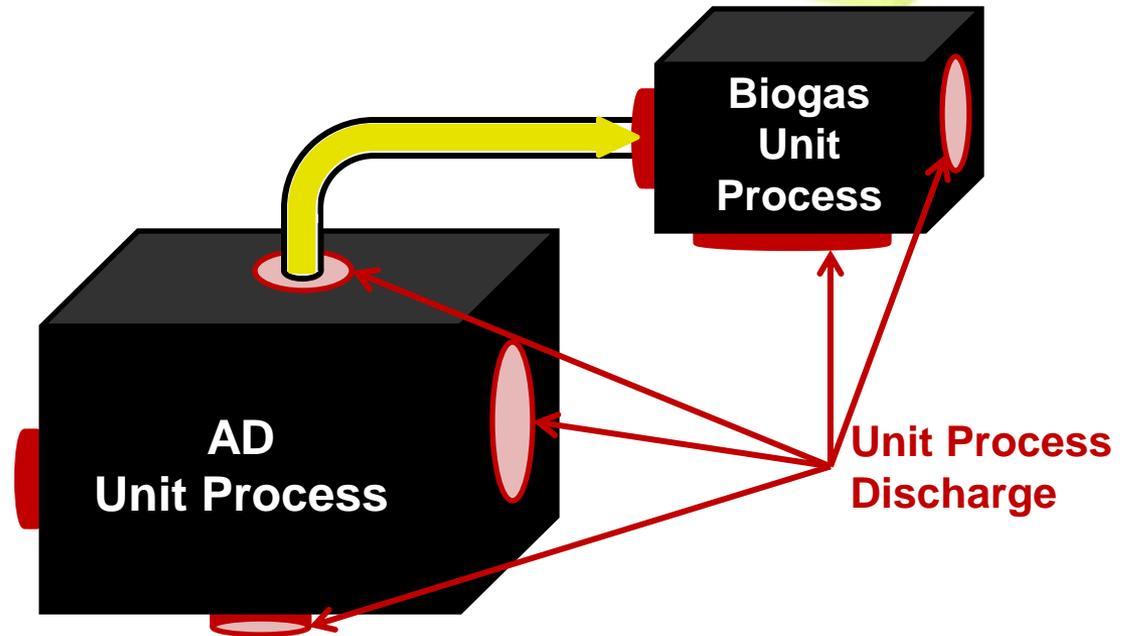
Optimize the natural conditions that best facilitate anaerobic digestion and maximize biogas production:

1. Adequate moisture
2. “Thriving” temperature
3. Optimum feedstock
4. Maximum mixing/introduction

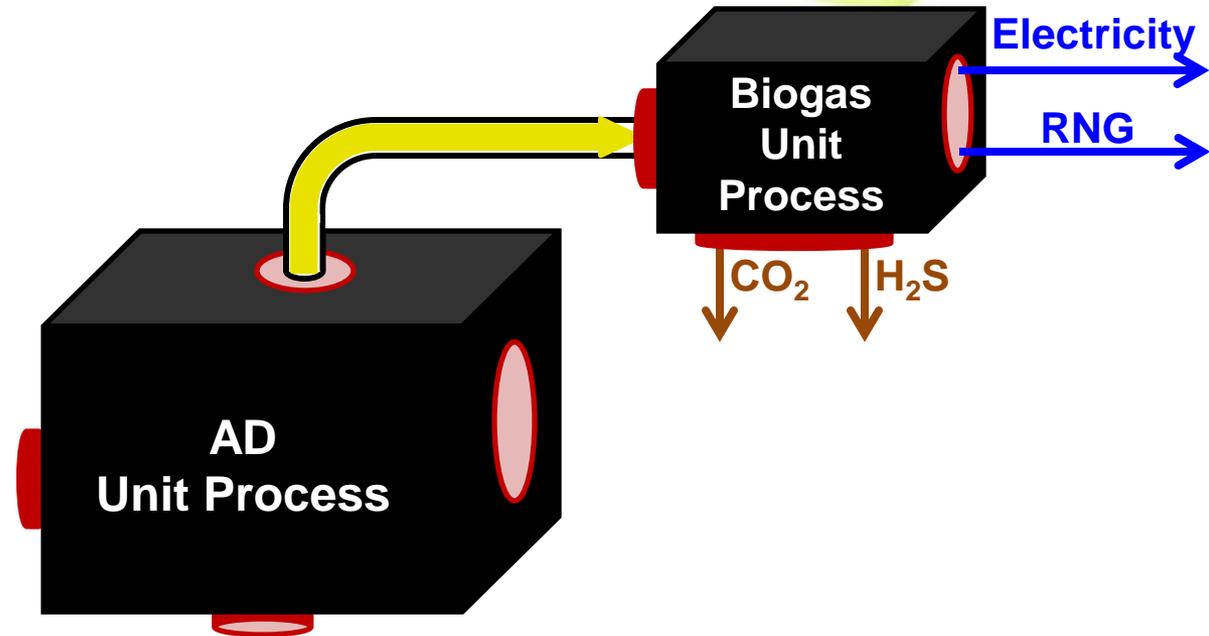
Anaerobic Digestion Process



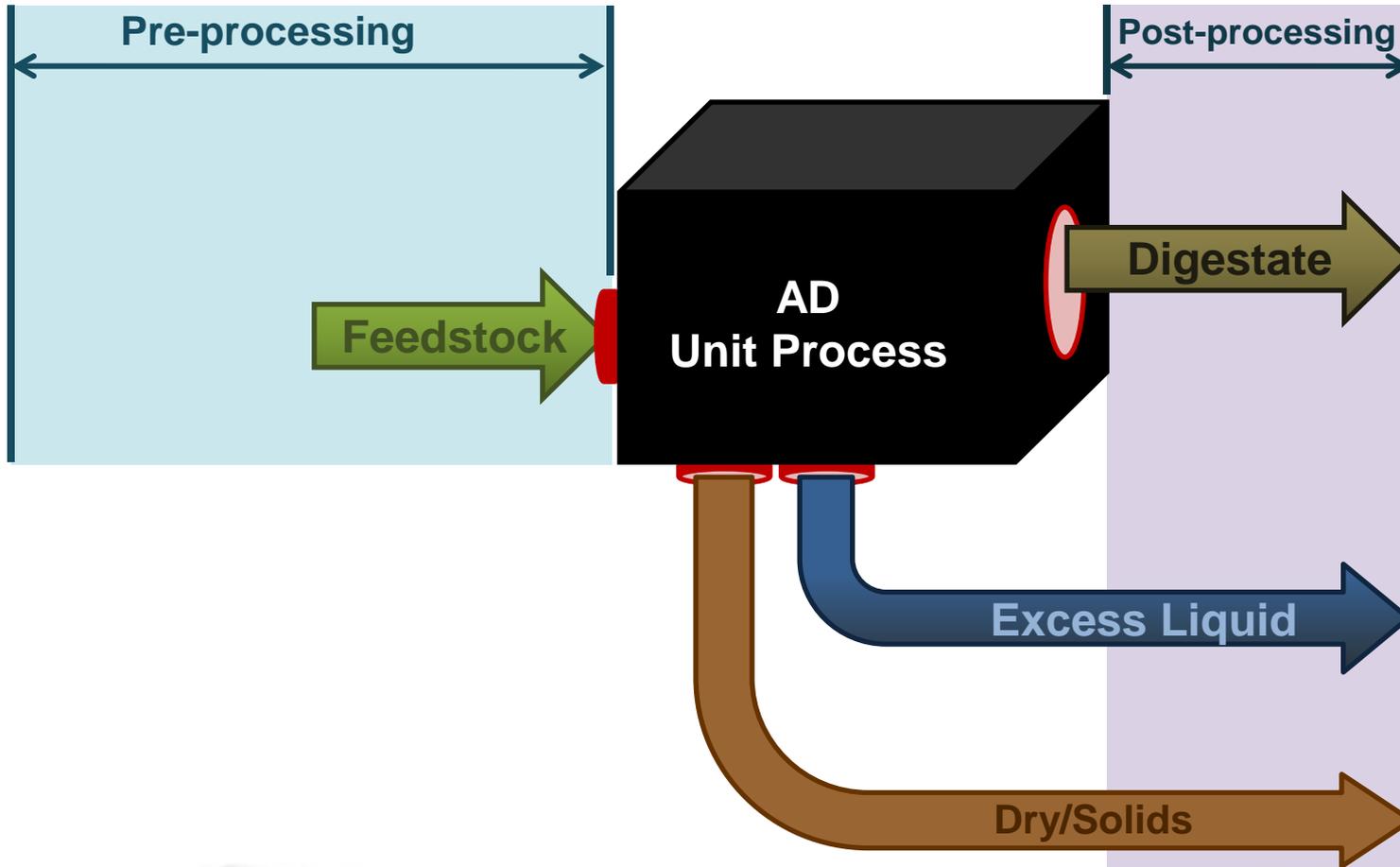
Anaerobic Digestion Process



Anaerobic Digestion Process

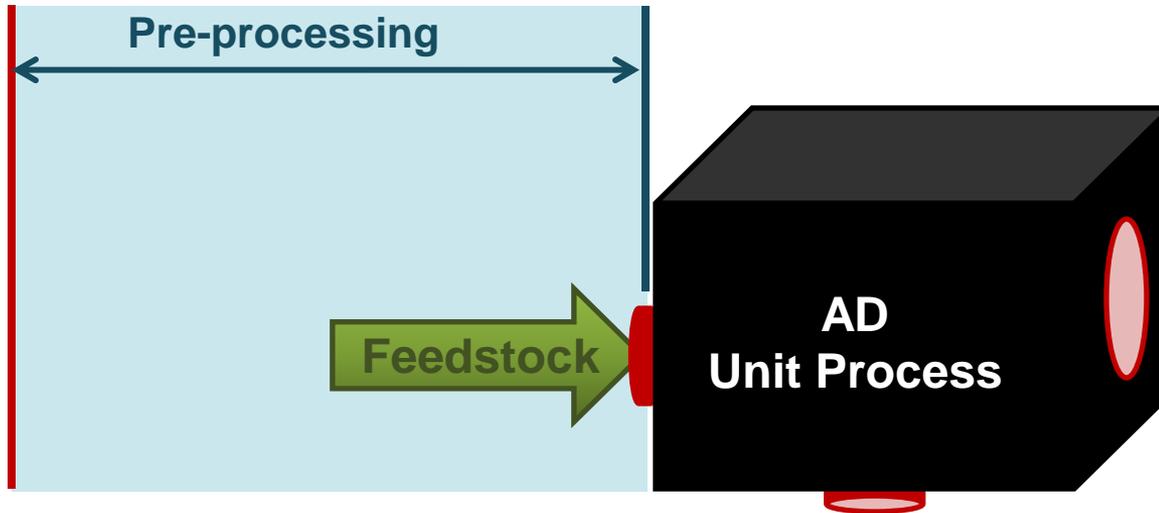


AD Process



AD Process – Pre-processing

Collection



AD Process - Collection

- Source-separated Commercial
 - Super Markets, Produce Distributors



AD Process - Collection

- Source-separated Commercial
 - Super Markets, Produce Distributors
 - Restaurants, Institutional



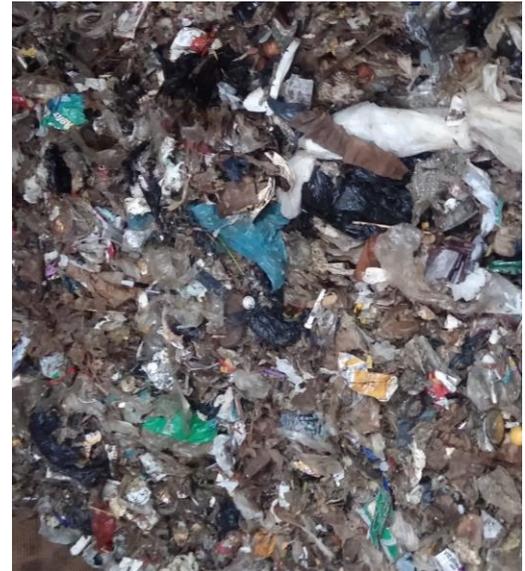
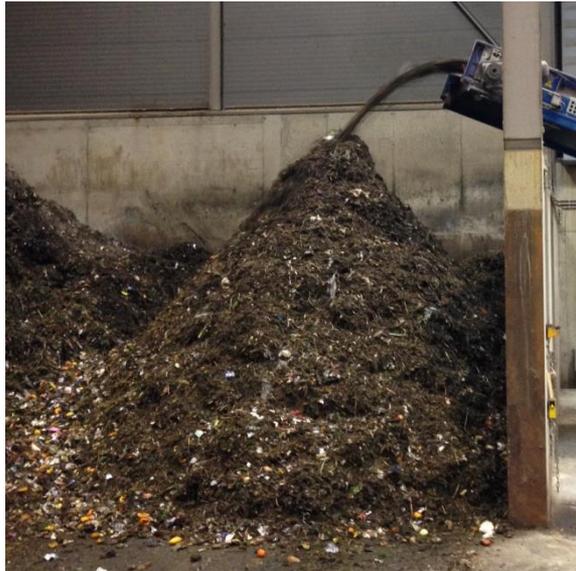
AD Process - Collection

- Source-separated Commercial
- Residential Green/Food?



AD Process - Collection

- Source-separated Commercial
- Residential Green/Food?
- Mixed-waste post-MRF Residuals

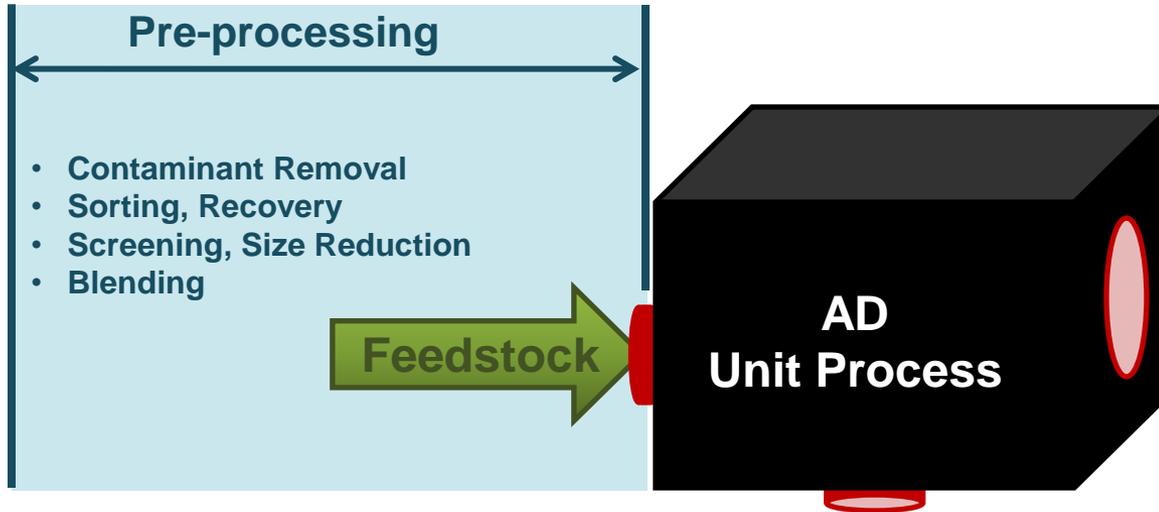


AD Process - Collection

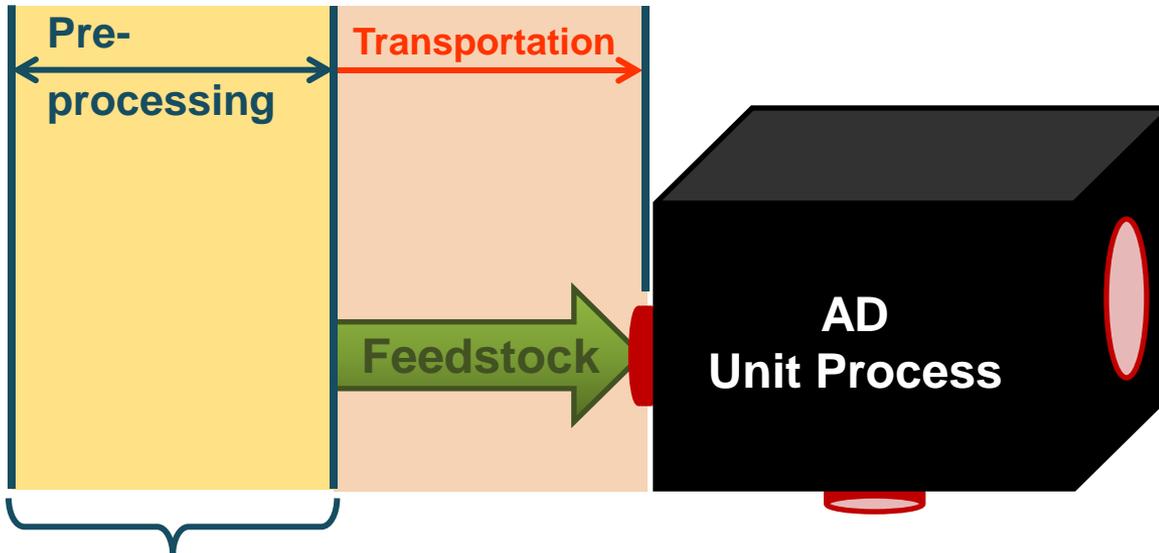
- Liquids



AD Process – Pre-processing

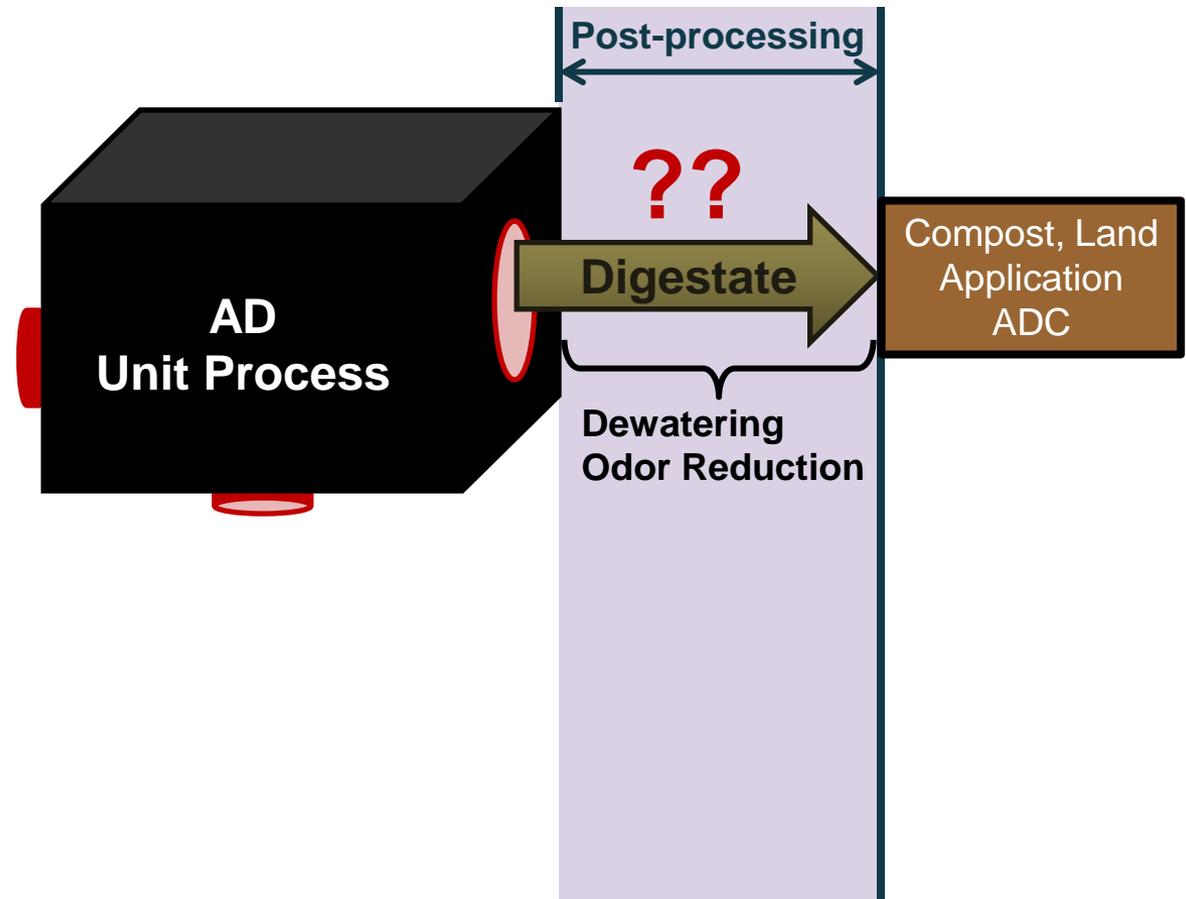


AD Process – Pre-processing

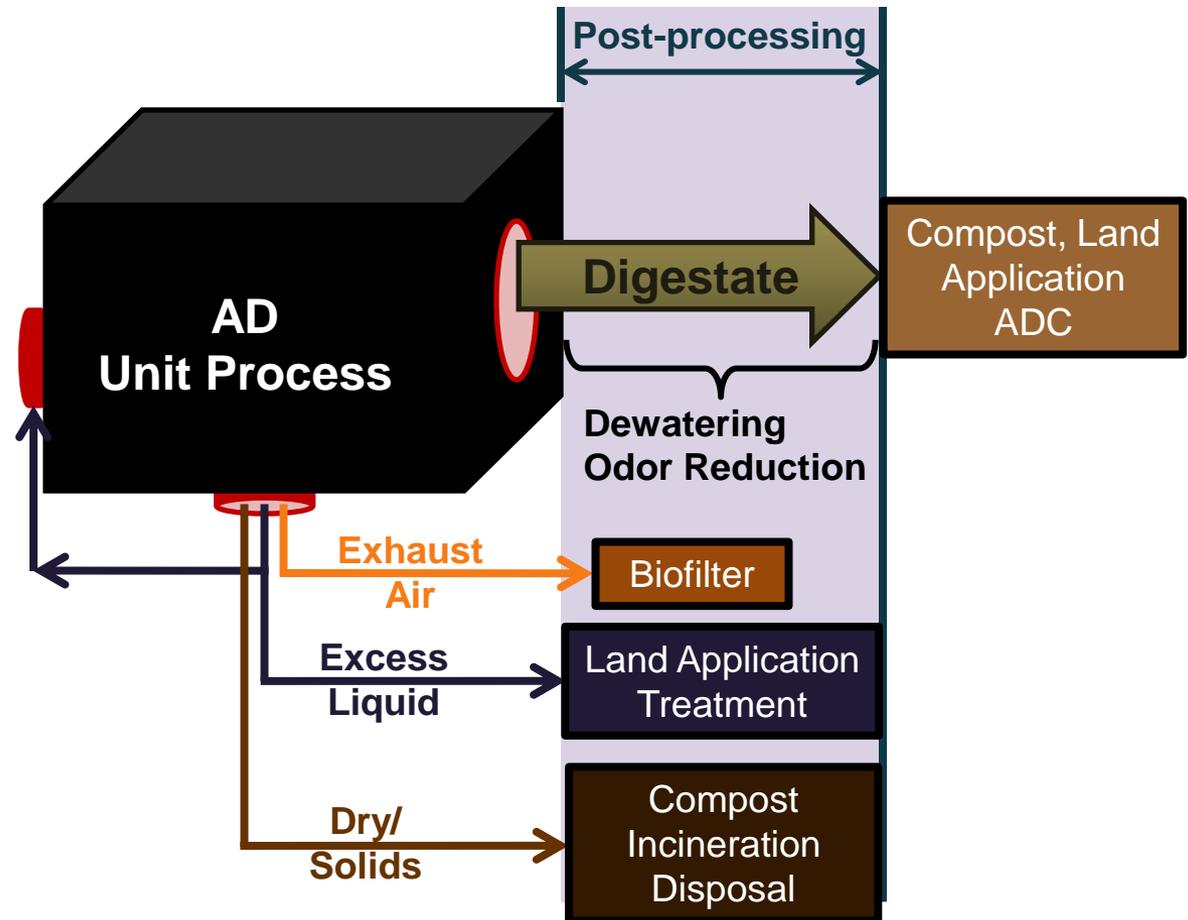


Could be performed
in a MRF or TS

AD Process – Post-processing



AD Process – Post-processing



Types of AD Systems

Wet

Dry

- **Dry Fermentation**
- **Plug Flow**

Questions



Presented By
James R. Miller
J.R. Miller & Associates | JRMA
jrmiller@jrma.com | www.jrma.com



ARCHITECTS
ENGINEERS
PLANNERS