

Utilizing NRCS for Anaerobic Digester Systems



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Presentation Outline

- History and background of assistance
- Addressing resource concerns
- Available programs and assistance through NRCS

Productive **Lands**

Healthy **Environment**

High Quality, Productive Soils



Clean and Abundant Water



Healthy Plant and Animal Communities



Clean Air



An Adequate Energy Supply



Working Farm and Ranch Lands



History

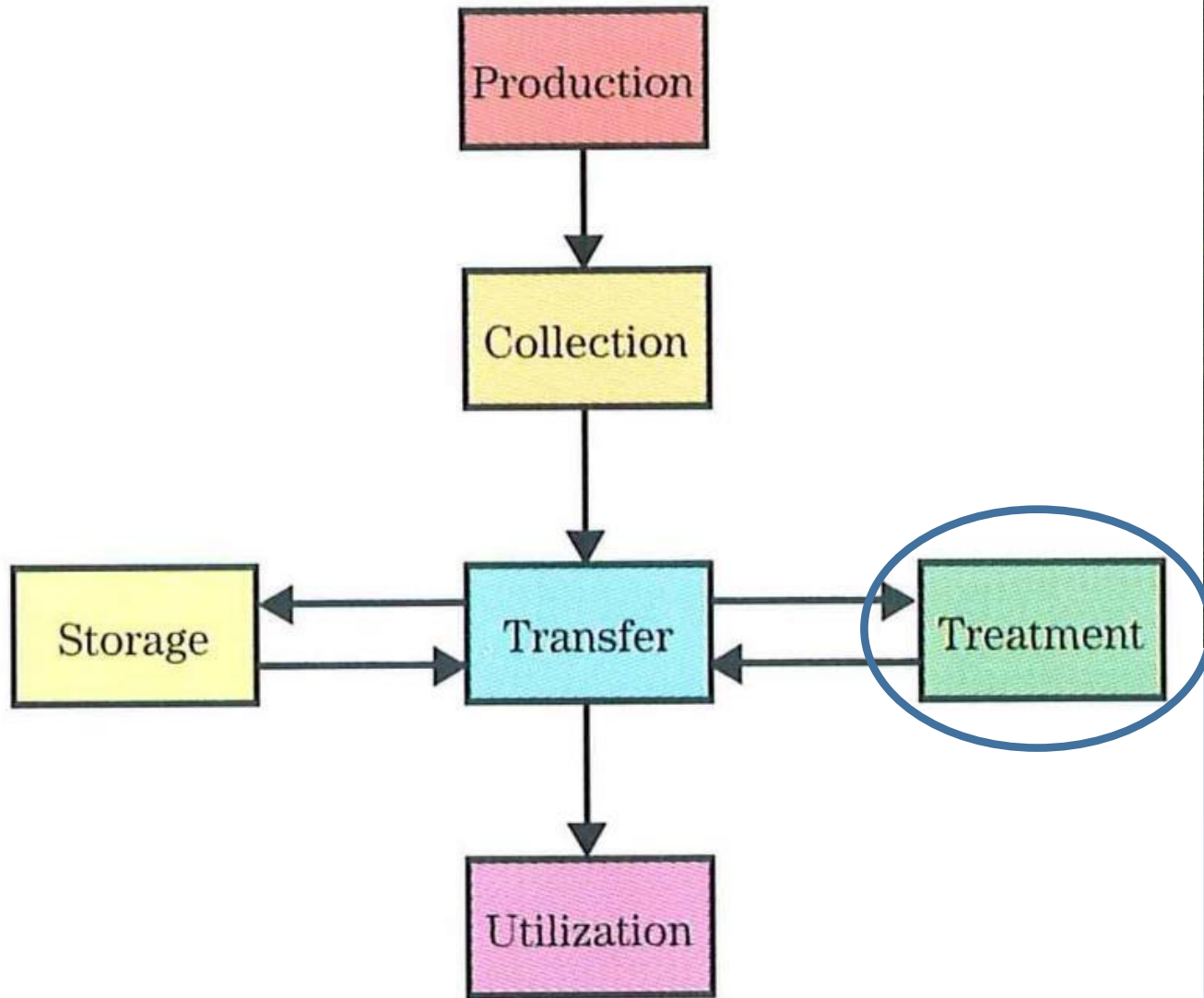
- Between 2003 and 2017 NRCS has provided assistance on 49 anaerobic digesters
- Programs
 - Agricultural Water Enhancement Program (1 digester system)
 - Chesapeake Bay Watershed Initiative (3 digester systems)
 - Environmental Quality Incentives Program (45 digester systems)
- Obligations
 - \$11,368,478

History

- Prior to 2009
 - Anaerobic Digester – Ambient Temperature (365)
 - Anaerobic Digester – Controlled Temperature (366)
- After 2009
 - Anaerobic Digester (366)
 - Combined standard handles all digester systems
- Ambient Temperature
 - Generally covered lagoons
- Controlled Temperature
 - Plug flow, complete mix, other types



Manure Management Functions



An anaerobic digester may only be part of an overall animal manure management system.

Before Developing Contract

- Determine if there are resources concerns
- Use NRCS planning process
- Develop a Comprehensive Nutrient Management Plan (CNMP)
 - Record of Decisions to address resource concerns
 - Water Quality
 - Soil Erosion
 - Air Quality
 - Usually multiple conservation practices are required to address the necessary resource concerns



Anaerobic Digestion (366)

- Purposes:
 - Manage odors
 - Reduce net effect of greenhouse gas emissions
 - Reduce pathogens
 - Capture biogas to facilitate energy production*



Limitation

- Environmental Quality Incentives Program Manual (based on The Agricultural Act of 2014) Natural Resources Conservation Service can assist producers to specifically address energy conservation through practice implementation.
- **Exemptions** to payment include “**practices or activities where the primary purpose is renewable energy production** (e.g., generation of electricity or biofuel practices).
- NRCS through EQIP does not provide payments on the energy generation components of an anaerobic digestion system (i.e. genset or compressed biogas conversion).



EQIP Eligibility

- Control or own eligible land
- Comply with adjusted gross income limitation (AGI) provisions (~\$900,000 gross maximum)
- Be in compliance with the highly erodible land and wetland conservation requirements
- Develop a CNMP to address the necessary resource concerns

EQIP - Environmental Quality Incentives Program

- Help producers install or implement structural, vegetative, and management practices on eligible agricultural land
- Payments can be made up to 75% of the costs
 - 90% for socially disadvantaged, limited-resource, beginning, and veteran farmer and ranchers

Payment Limitation

- Food, Conservation, and Energy Act of 2008 – payment limitation of **\$300,000** with the waiver authority by the Chief of NRCS to not exceed \$450,000.
- Agricultural Act of 2014 - “A person or legal entity may not receive, directly or indirectly, cost-share or incentive payments under this chapter that, in aggregate, exceed **\$450,000** for all contracts entered into under this chapter by the person or legal entity during the period of fiscal H. R. 2642—83 years 2014 through 2018, regardless of the number of contracts entered into under this chapter by the person or legal entity.”

Ancillary Practices

- Waste Separation Facility (632)
- Waste Storage Facility (313)
- Waste Treatment (629)
- Waste Transfer (634)
- Roofs and Covers (367)
- Waste Treatment Lagoon (359)



Contracting

- Complete CNMP
 - Record of Decisions
 - Conservation Practices
 - Implementation Timeline
- Develop financial contract
- All practices listed in the CNMP must be implemented by the end of the contract period



CIG - Conservation Innovation Grants

- competitive grants that stimulate the development and adoption of innovative approaches and technologies for conservation on agricultural lands
- ~ \$15 - 20 million per year since 2004 (\$237 million since 2004)
- Up to 50% matching federal funds (maximum of \$2 million)

Conservation Innovation Grants Anaerobic Digester

- Cayuga County Soil and Water Conservation District – Cayuga County Environmental Regional Digester
- Classic Farms, LLC – Installation of a “Fixed Film” Anaerobic Digester on a Swine Finishing Facility
- University of Georgia – Extracting Energy from Poultry Waste and Fruit and Vegetable Waste Through Anaerobic Digestion Technology
- Utah State University – Cost-Effective and Reliable Anaerobic Digestion for Animal Feeding Operations
- Washington State University – Pathogen Reduction in a Community Based Anaerobic Digester

Conclusions

- Several conservation practices may be required to address the resource concerns with anaerobic digester possibly being one of those practices
- A comprehensive nutrient management plan (CNMP) is to be developed before an EQIP contract
- Current Farm Bill payment through EQIP is limited to \$450,000 by the person or legal entity
- Conservation Innovation Grants can be used to demonstrate innovative technologies

The End



Thank You