



*Financing an Anaerobic Digester
System Webinar*

Madison, WI

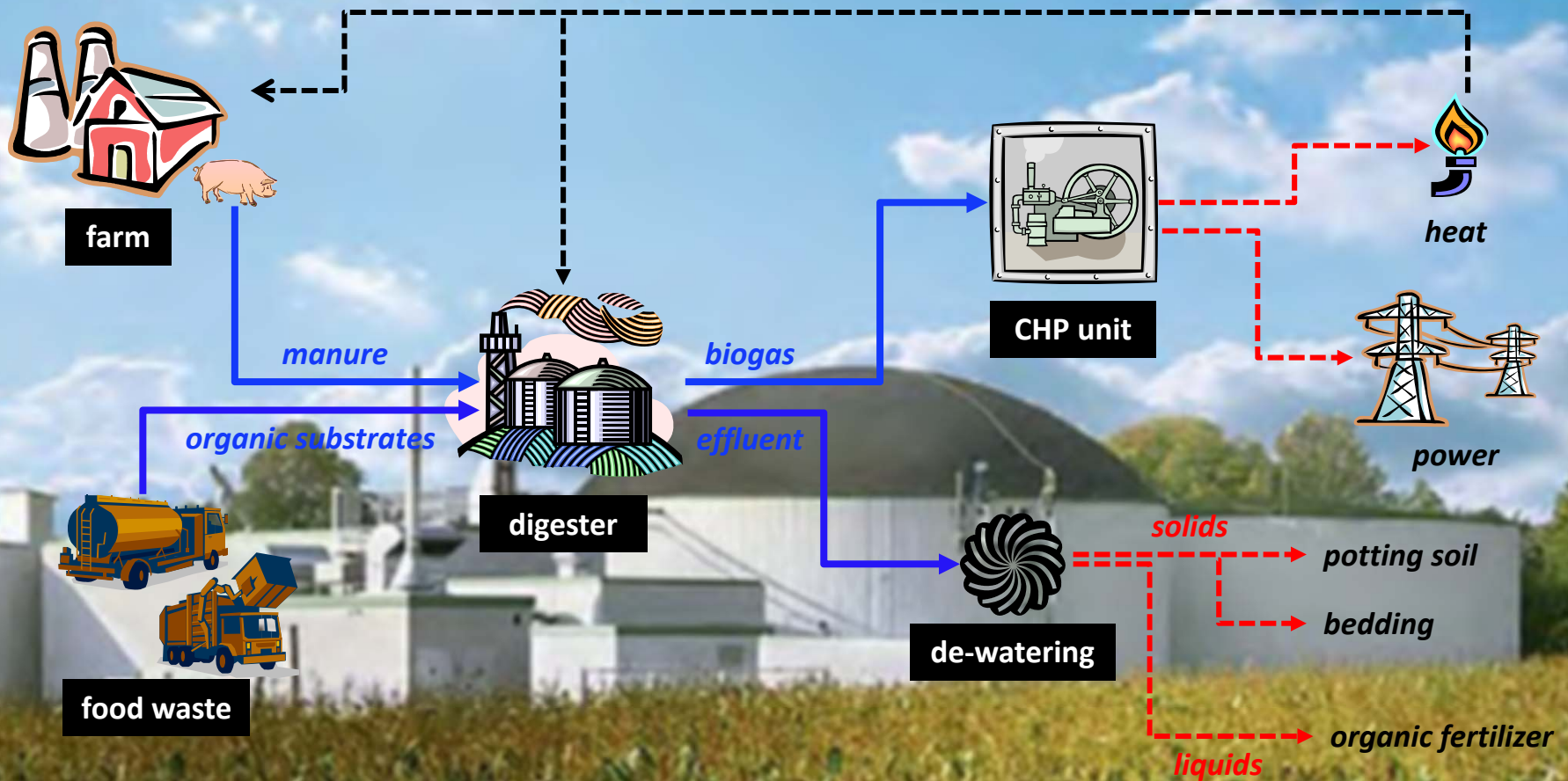
By: Karl Crave
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Presentation Outline

- Crave Brothers Farm & Crave Brothers Farmstead Cheese
- Business Models
- Project Recommendations



Conceptual AD Process Diagram



US EPA AgStar

Crave Brothers Farm, Crave Brothers Farmstead Cheese

- 633kW, 2 complete mixed digesters owned and operated by Milwaukee, WI based Clear Horizons since 2007



Manure Manager Magazine

Crave Brothers Farm, Crave Brothers Farmstead Cheese



Watertown Daily Times



Crave Brothers Farm, Crave Brothers Farmstead Cheese

- Why farm choose third party ownership
 - Wanted to incorporate a digester into waste handling system, but lacked capital
 - Growing farm and cheese factory priority
- What has worked well



- “We all know that having a sustainable or green business only works if you have a viable business,” said Crave, whose company installed a digester that converts the methane from cow manure to electricity – yielding enough energy to power his farm and 120 of his neighbors’ homes. “We can’t affect water quality, we can’t affect air quality, we can’t meet payroll and pay our bills [unless the business works]. So running a sustainable business first and foremost is running a successful financial business.”
George Crave, Crave Brothers Farmstead Cheese

Business Model Options

- Farmer owned, farmer operated
- Farmer owned, professionally operated
- Third party owned, professionally operated
- Located or owned at waste generator such as farm, cheese factory, or brewery
- Community type systems

Project Recommendations

- Dedicated person to development process
 - Development of project takes 1.5-5+ years from first conversations to breaking ground
 - Authority to provide information and make decisions
 - If you don't have the time, find someone else
- Have a budget for time and money to reach milestones
 - Travel, evaluate options
 - Site visits, meetings
 - Feasibility study
 - Preliminary design
 - Grant applications
 - Utility interconnect studies
 - Contract negotiations

Project Recommendations

- Dedicated person to Operation and Maintenance
 - To be successful, you MUST have someone who is dedicated, and has a vested interest in the success of your waste water treatment system
 - They guy who milks your cows should not be in charge of “checking on the digester”
 - Available for remote monitoring or alarms 24x7x365
 - Who is 2nd, 3rd, 4th person to respond?
 - Proper training prior and after constructed
 - Michigan State University Digester Operator Training Course
 - OSHA safety training, emergency response training

Questions?

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