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# **U.S. Dairy Industry's National Market Value of Anaerobic Digester Products**

Opportunities for dairies to create a \$3 billion  
bioeconomy for food and agriculture



# National Market Value of Anaerobic Digester Products

**informa economics**

Prepared for:



# National research team

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## Informa Economics

- Leader in agricultural commodities
- Defined revenue potentials for digester products



## Center for Advanced Energy Studies

- Idaho Universities and DoE Idaho National Laboratory
- MOU with IC for joint dairy industry research



## Report conclusions

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*Partnerships between dairy farms, food processors and retailers have the potential to solve current environmental concerns, such as nutrient management, water quality and food waste, while creating a nearly \$3 billion bioeconomy for dairy, food and agriculture.*

*This innovative plan can also help address food security issues facing a growing population.*

# Big Sky West Dairy, Idaho (Russel Visser)







Manure collection



Manure slurry supplied to  
the digester







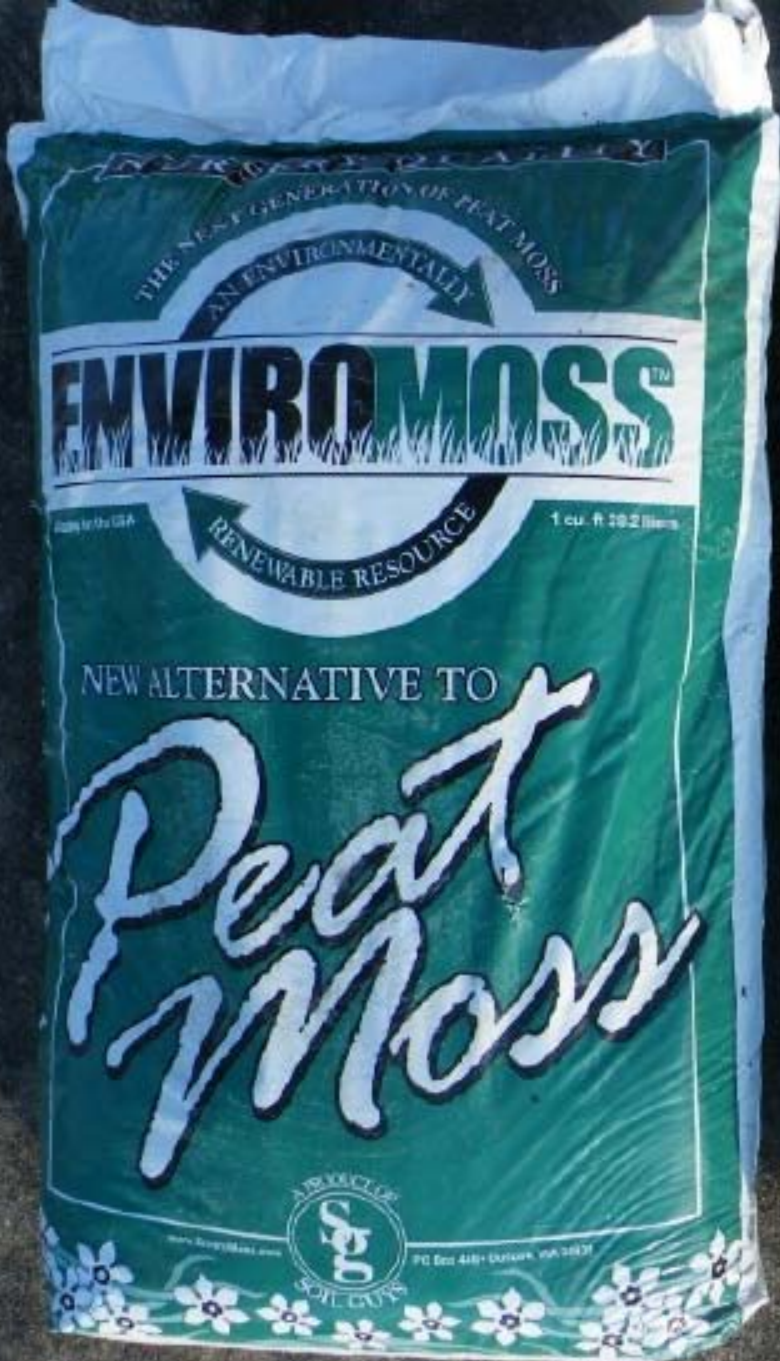
Fiber from the screw press





Pathogen free fiber





Fiber available for sale as high quality peat moss alternative



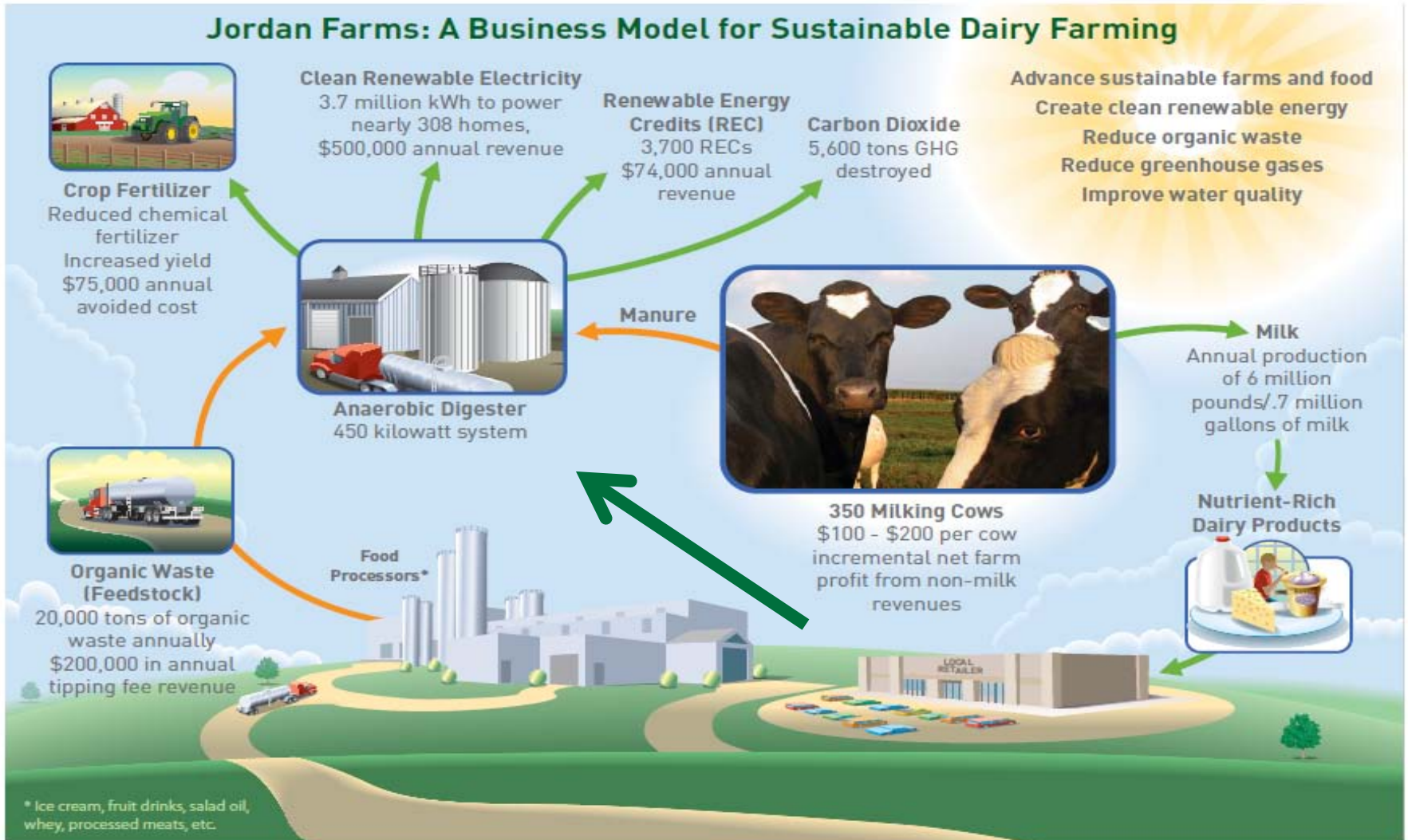


N & P can be separated from digester effluent (or from a lagoon with no digester)



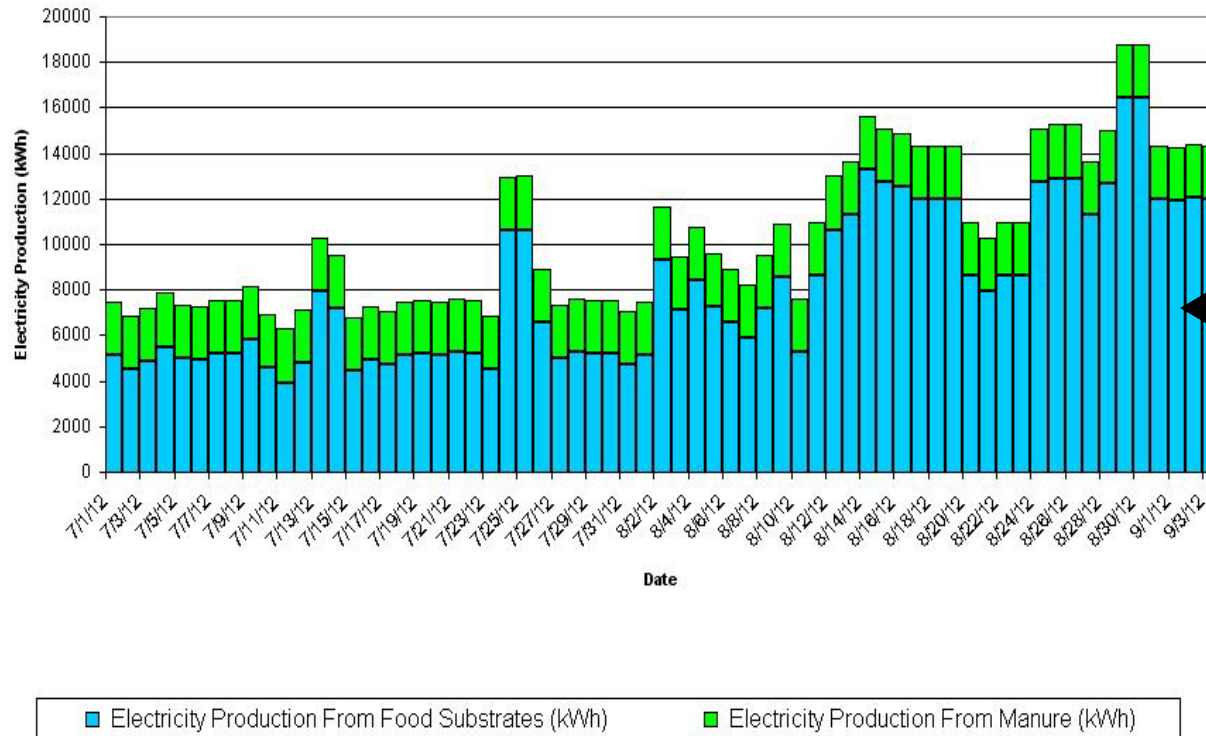


# Jordan Dairy Farm, Rutland, Mass. (Randy Jordan)



# Jordan Dairy - actual electricity production

Jordan Dairy Biogas Daily Electricity Production



**70% of the electricity from food waste**



# Business value to producers

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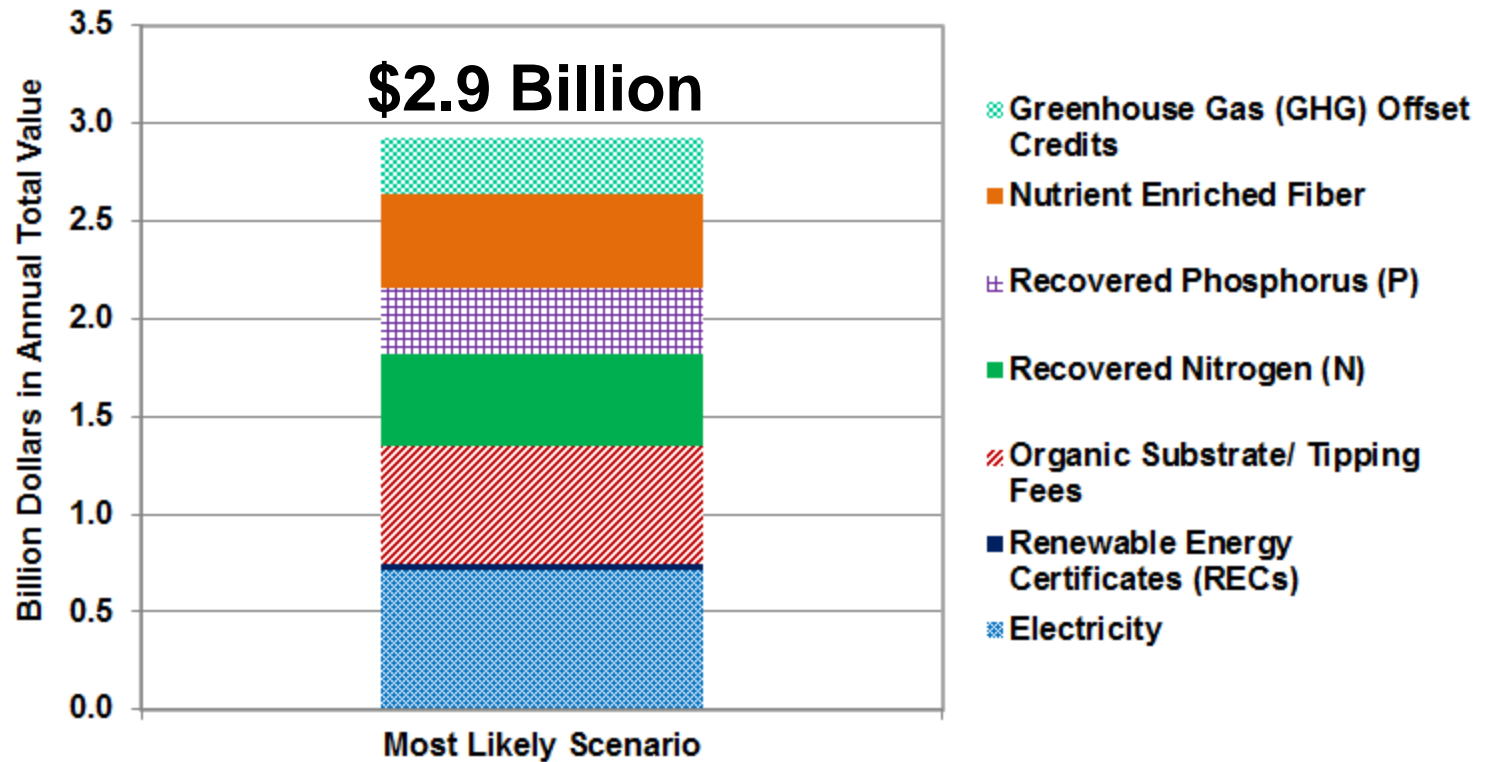
What is the value  
of dairy manure  
today?

What if ?



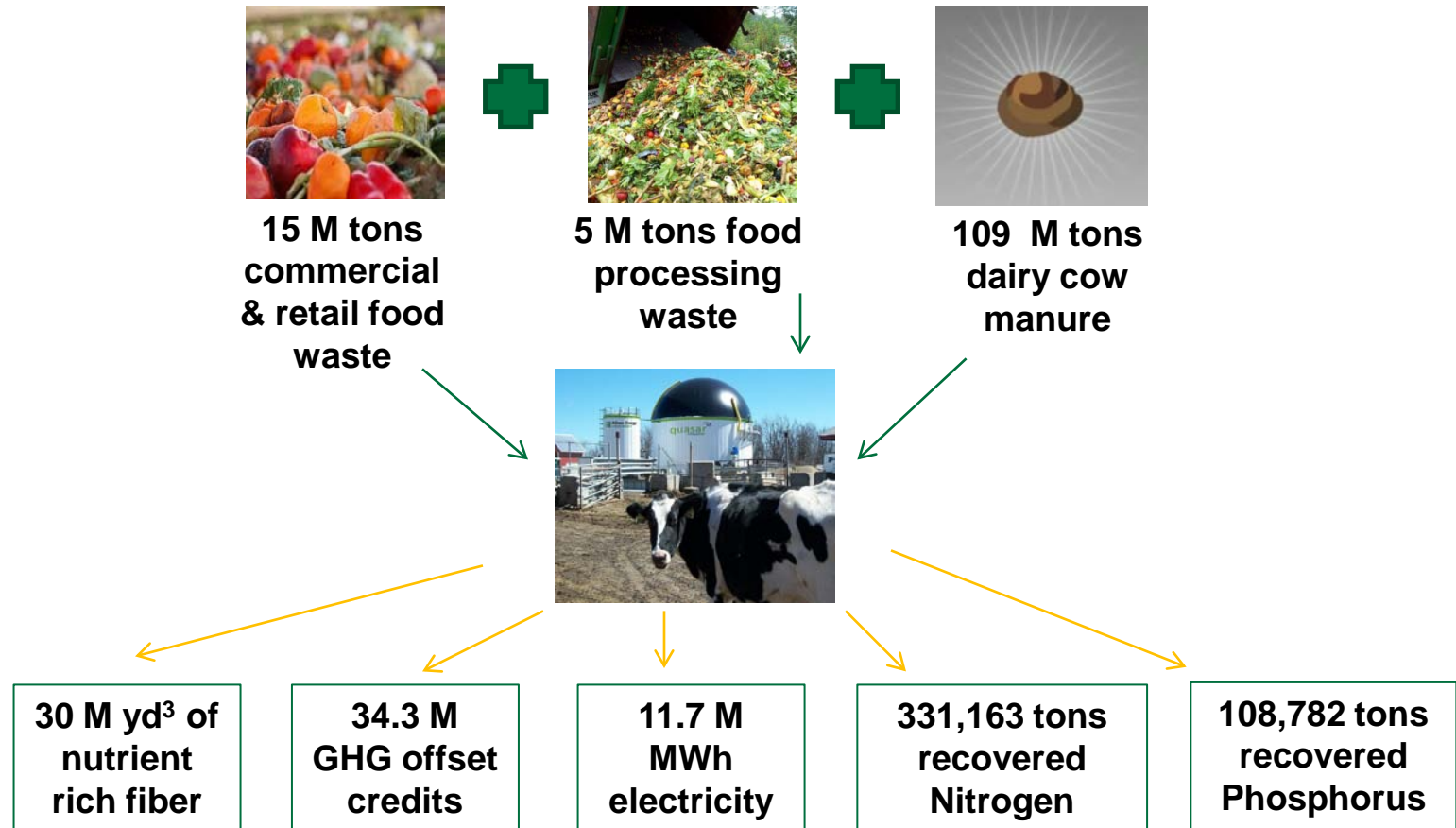
\$100/cow/year

# Digester products market potential



Nearly \$3 billion potential for dairy industry

# What if 70% of commercial food waste currently being thrown away was put back into the food system?

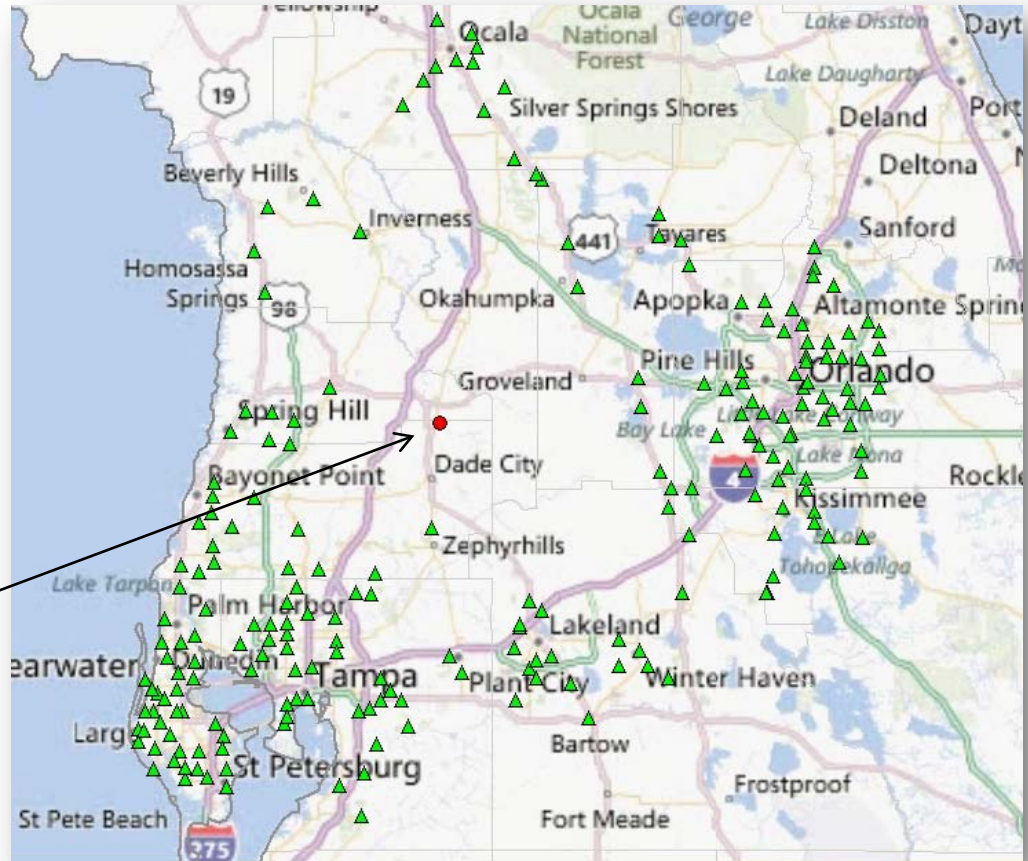




# Retailers seeking dairy partners

Kroger  
Walmart  
Publix  
Whole Foods

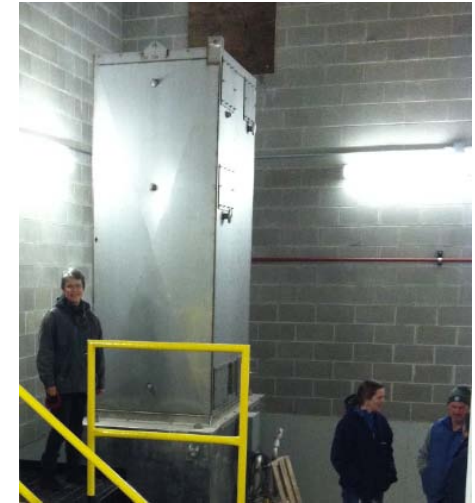
Dairy  
125 cows  
217 stores  
60 mile radius



# Nutrient fractionation

Farmers can realize market opportunities and environmental benefits from nutrient fractionation both lagoons and digesters

Dallman Dairy  
Wisconsin




FPPC in Florida



**SYSTEM RESULTS**

1) 95% Solids Captured



# Transformational partnerships – dairies and retailers

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Retailers and farmers together are realizing market opportunities and environmental benefits of repurposing manure and food waste to their highest value





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# Thank you

Jerry Bingold

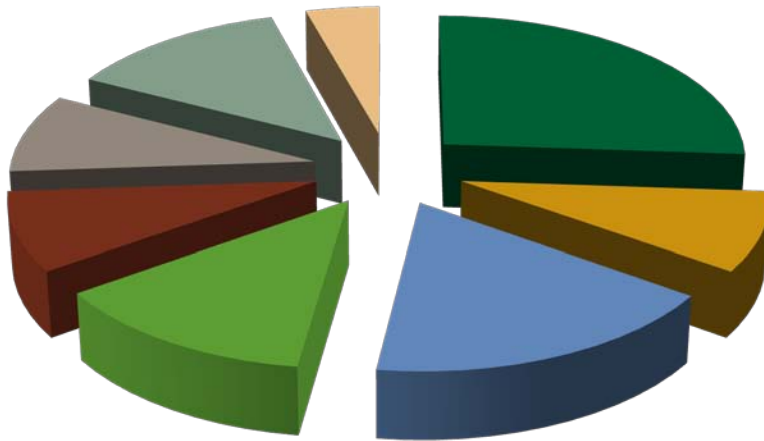
Innovation Center for U.S. Dairy

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[www.USDairy.com](http://www.USDairy.com)

# National advisory committee

## Committee Membership

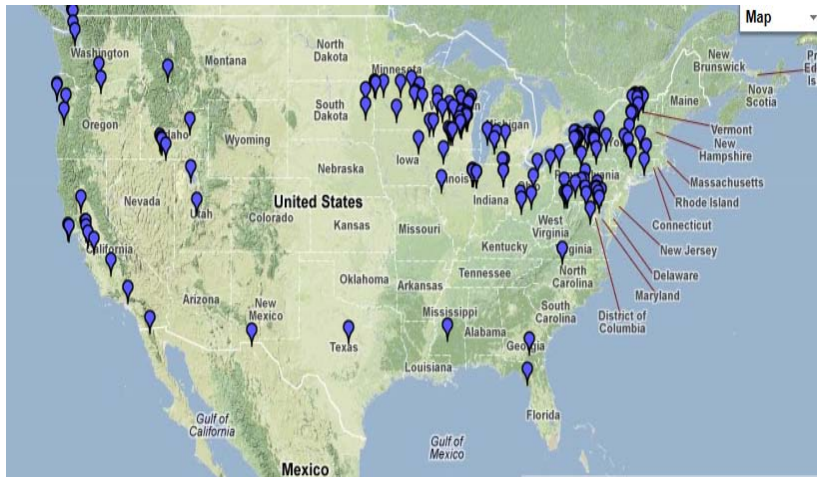


- Digester Developers
- Co-Products
- NGO
- Governmental
- Producers
- Research
- Financial
- Communications



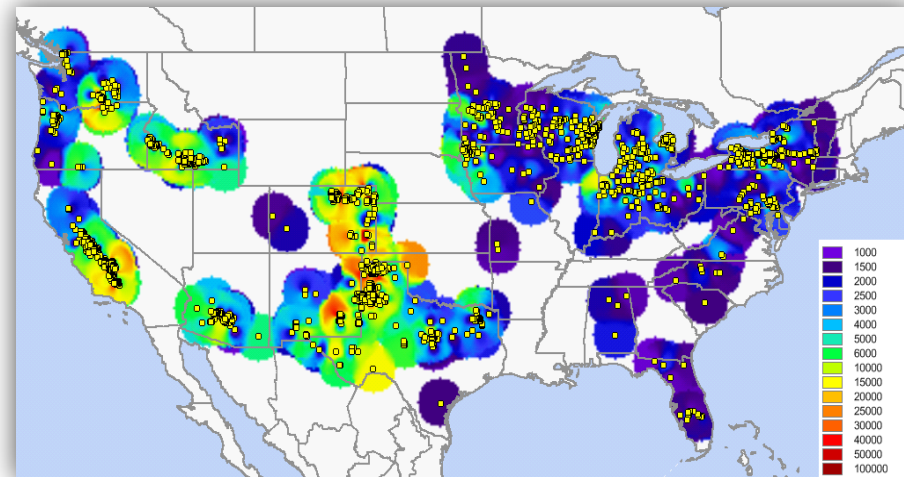
# Potential for 2,647 dairy anaerobic digesters nationwide

From



**160 digesters**

To



**2,647 digesters**

- ❑ High value regions targeted in the report
- ❑ Framework for studies on dairies less than 500 head
- ❑ Drive technology developments and investors



# Project finance structure

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