

NORTH AMERICAN
BIOECONOMY
DATA ALLIANCE™

Tech Hub Live Roundtable

- Powering the Bioeconomy with Manure
- A NABDA Discussion on Data, Innovation, and Opportunity
- Presented by: Joyce Hunter

NABDA – Who We Are

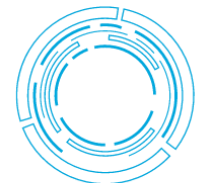
- Mission: To optimize feedstock management, advancing circularity and sustainability through data collaboration.
- Vision: Transforming North America's bioeconomy through innovation, equity, and environmental stewardship.
- Value Proposition: Empowering a sustainable future through data-driven decision-making and inclusive partnerships.



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Why We're Here

- Primary Goal:
 - Advance collaboration across North America around data literacy, valuation, and accessibility—starting with biomass data.
- Secondary Goal:
 - Create a practical framework to inventory, validate, and secure data on biomass, with a focus on waste utilization and circular market growth.

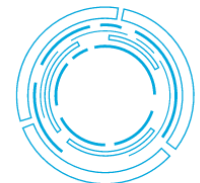


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The Biomass Landscape

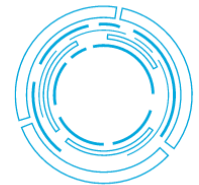
- Materials Considered:
 - Corn stover, soybeans, canola, cooking oil
 - Switchgrass, wheat/oat straw, algae
 - Crop residues, beef pulp, animal by-products
 - Hemp, flax, bacteria, yeast, fruit/veg scraps
 - Manure (highlighted as priority focus)



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Why Manure?

- Abundant and underutilized
- Reduces GHG emissions
- Converts waste into biogas (renewable energy)
- High-value organic fertilizer
- Improves soil health and water retention
- Economically viable and scalable
- Promotes equity and circular economy

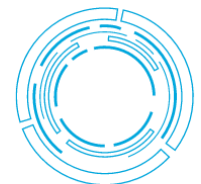


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Data-Driven Justification

- U.S. TAM (Total Addressable Market) for recoverable manure is \$3.2 billion with higher potential across North America
- Lower lifecycle emissions than crop-based biofuels
- Case studies show cost savings from anaerobic digestion
- Comparative analysis: manure outperforms soy/canola in key sustainability metrics



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Policy & Standards Recommendations

- Utilize current national manure nutrient data standards
 - Ex. ASABE manure characteristics in U.S.
- Support cooperative digesters for small/medium farms
- Include manure in USDA/DOE biomass criteria
- Use ManureDB as an open-access, trusted resource



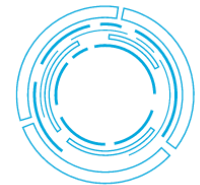
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The ManureDB Platform

- Centralized data repository on U.S. manure and organic amendment nutrient concentrations
- Supports transparency, farmer decision-making, and equitable access
- Key tool for regional resource matching

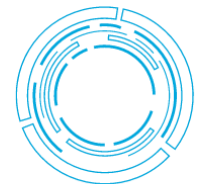


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The Online Manure Auction

- Connects surplus with deficit regions
- Real-time bidding and post-sale support
- TAM: \$3.2B in the U.S. with potential growth across North America
- Promotes nutrient recycling and cost efficiency

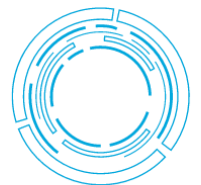


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NABDA Action Plan

- Finalize data inventories and stakeholder mapping
- Launch pilot sites with integrated auctions
- Conduct proof-of-concept trials
- Promote findings at Tech Hub Live and recommended channels
- Advocate for USDA/DOE manure-inclusive funding



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Call to Action

- Help us shape a data-driven, manure-powered bioeconomy:
 - ✓ Support pilot site and auction infrastructure
 - ✓ Collaborate on national nutrient standards
 - ✓ Invest in cooperative digesters
 - ✓ Advocate for inclusive federal incentives





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Join NABDA

- Corporate & Individual Memberships Available
- Work with us to drive real change in sustainable agriculture and energy.

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