Industry Assessment: Manure Processing & Nutrient Recycling Technologies

European Nutrient Event
October 19, 2017

Steve Rowe, CEO
Newtrient LLC
www.newtrient.com
Representing a vast amount of the milk produced in the United States...
Mission: Reducing the environmental footprint of dairy farming and making it economically viable to do so.

Newtrient Technology Catalog
An unbiased view of today’s technological options

Business Development
Advancing manure-based technologies and products

Environmental Services Marketplace
Advocating for the adoption of environmental asset markets for voluntary pollution prevention services
Increasing regulatory, judicial and societal pressures

Manure Is Spilling and Seeping into Wisconsin’s Waterways and Wells

As the state’s dairy farms get bigger, cow poop is polluting Lake Michigan and people’s drinking water.

Massive dairy farms and locals debate: Can manure from so many cattle be safely spread on the land?
Our Mission

CURRENT STATE

- Increasing regulatory, judicial and societal pressures
- Surface and ground water issues related to nitrogen and phosphorus
- Erosion in consumer trust

DESIRED STATE

- Farms help resolve societal issues related to water pollution and GHG emissions
- Farmers realize economic benefits from voluntary actions
- Farmers improve their social license to operate and increase
Manure-management technology challenges

Challenge #1: Abundance of technologies, shortage of technology knowledge and information available to farmers

Challenge #2: Vendors don’t always have the resources needed to break into the agriculture space
Solution: An open-access technology catalog

www.newtrient.com
Evaluating all manure-based technologies in North America

COMMERCIAL VIABILITY
• Operational History (operating on 3+ farms)
• Operational Reliability (12+ months reliable performance)
• Market Penetration (installed on 10+ farms)

TRANSPARENCY & INTERACTION
• Capital Costs Identified (installed CAPEX is clear)
• Operations and Maintenance Cost Identified (actual OPEX)
• Vendor Information Sharing (Business & Technology Information)

ECONOMICS & INDUSTRY VALUE
• Value Proposition (delivers identifiable value to the farm)
• Case Study (completed case study)
• Customer Reviews (3 farms “recommend”)
Evaluating all manure-based technologies in North America

**Technology Description:**
DVO, Inc. - Phosphorus Recovery

**Company Description:**
DVO is a world-leading provider of green technologies, providing solutions for the treatment of liquid and solid waste. DVO incinerates, dewatered sludge and solids to produce a saleable product that can be credit towards the price to the product.

**Technology Score:**
- **Economics & Industry Value:** 8
- **Transparency & Interaction:** 7
- **Commercial Viability:** 9

**Newtrient’s Team of Experts:**
- **Technology is evaluated on a 9-point criteria by Newtrient’s team of experts:**
  - **Economics & Industry Value**
  - **Transparency & Interaction**
  - **Commercial Viability**

**Reserved for Technologies Headed in the Right Direction:**
- New technologies that are improving the treatment of waste and the environment.

**Reserved for the Most Promising Technologies:**
- Technologies that are proven to be effective and have a high potential for commercialization.
What’s Next? Identifying Critical Environmental Indicators

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Contact Us

- Check out the Technology Catalog at www.newtrient.com

- Contact us for more information on the Catalog and North American manure-management technologies
  Email: info@newtrient.com