



*Bion's third-generation technology platform was designed to mitigate the environmental impacts of large-scale livestock production, while recovering high-value coproducts and renewable energy. Bion's technology, coupled with evolving policy changes that are now supported by national livestock interests and US EPA, provide a unique and transformative opportunity at the intersection of the \$200B animal-protein industry and the \$100B clean water space. Bion has been developing advanced livestock waste treatment systems since 1989.*

# Forward Looking Statements/Risk Factors

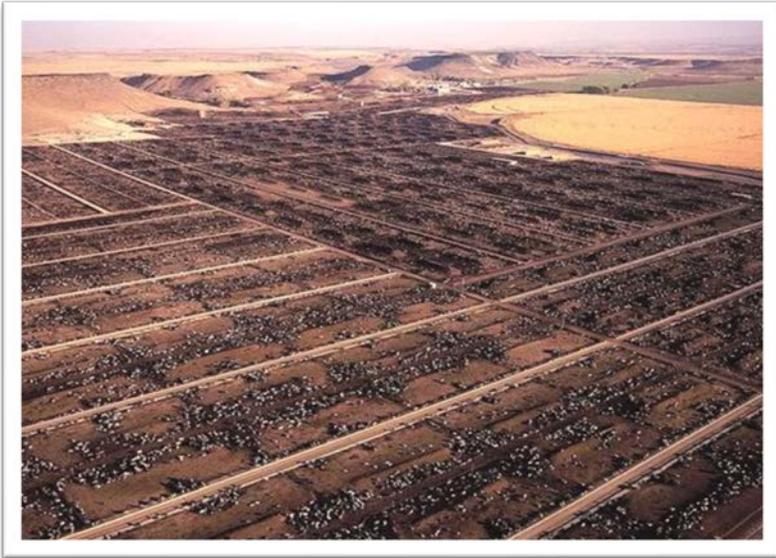
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*This presentation contains, in addition to historical information, **forward-looking statements** regarding Bion Environmental Technologies, Inc. (the "Company"), which represent the Company's expectations or beliefs including, but not limited to, statements concerning the Company's operations, performance, financial condition, business strategies, and other information and that involve substantial risks and uncertainties. The Company's actual results of operations, most of which are beyond the Company's control, could differ materially. For this purpose, any statements or revenue projections contained in this presentation that are not statements of historical fact may be deemed to be forward-looking statements.*

***Risk Factors** that could cause or contribute to such difference include, but are not limited to, limited operating history; uncertain nature of environmental regulation and operations; uncertain pace and form of development of nutrient (N&P) reduction market; risks of development of first of their kind Integrated Projects; need for substantial additional financing; competition; dependence on management; and other factors. Additional information regarding the Company's 3G technology platform should be reviewed in the Company Overview, available upon request and at [www.biontech.com](http://www.biontech.com). Investors are urged to also consider closely the disclosures and risk factors in the Company's current Form 10-K, filed with the Securities and Exchange Commission, available at [www.sec.gov](http://www.sec.gov).*

# U.S. Livestock Industry



U.S. Livestock Industry:  
80% on large-scale farms  
\$200B annual revenues

# The Problem...

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2.2 billion poultry  
90 million beef cattle  
60 million swine  
9 million dairy cows

In the United States only

1.37 BILLION tons of animal waste  
(130X human waste)  
Spread on the ground...

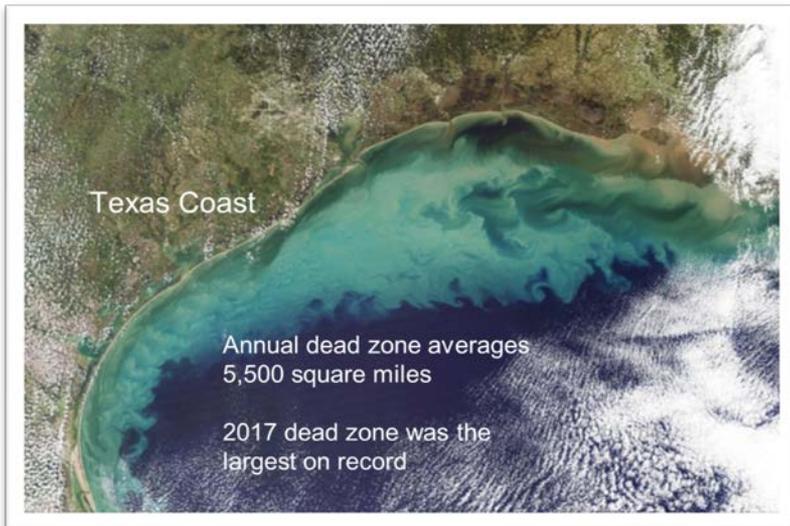


# Environmental Impacts

Half of U.S. crops are fertilized with raw manure

Environmental/public health impacts:

- > Algae blooms/dead zones
- > **Contaminated groundwater**
- > Greenhouse gas emissions
- > PM2.5 (particulate air pollution)
- > Odors
- > Pathogens-foodborne illnesses
- > Antibiotic resistance



U.S. livestock industry's environmental impacts:

# Unsustainable

# Livestock Industry Challenges

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- > Environmental impacts
  - Absent voluntary solution, regulation is inevitable.
  - The cost to remediate the environmental impacts – now ‘socialized’ offsite and downstream – is economically unsustainable in this low margin industry.
- > Consumer trust
  - The consumer is questioning the industry’s products: “Is it Safe? Is it Sustainable?”
  - Regulators, advocacy groups, and activist investors asking same questions.
  - Concerns not limited to US market.
- > Pricing power
  - Production is generally a low-margin commodity business.
  - ‘Organic’ has demonstrated consumers are willing to pay a premium for products that address their safety concerns.
  - Other than poultry, there are few animal-protein products with a healthy food message. Now sustainability is a large and growing concern.

How to address concerns for environmental sustainability and food safety, while remaining competitive in domestic and world export markets?

- > Implement solutions to mitigate environmental impacts (ammonia is key); *while*
- > *Generating the additional revenues needed to offset implementation costs (or risk losing export market).*
- > Communicate meaningful and verified environmental sustainability to the consumer.

Bion's integrated 3G technology platform and policy envelope were designed to address these needs.

# Bion: An Integrated Solution

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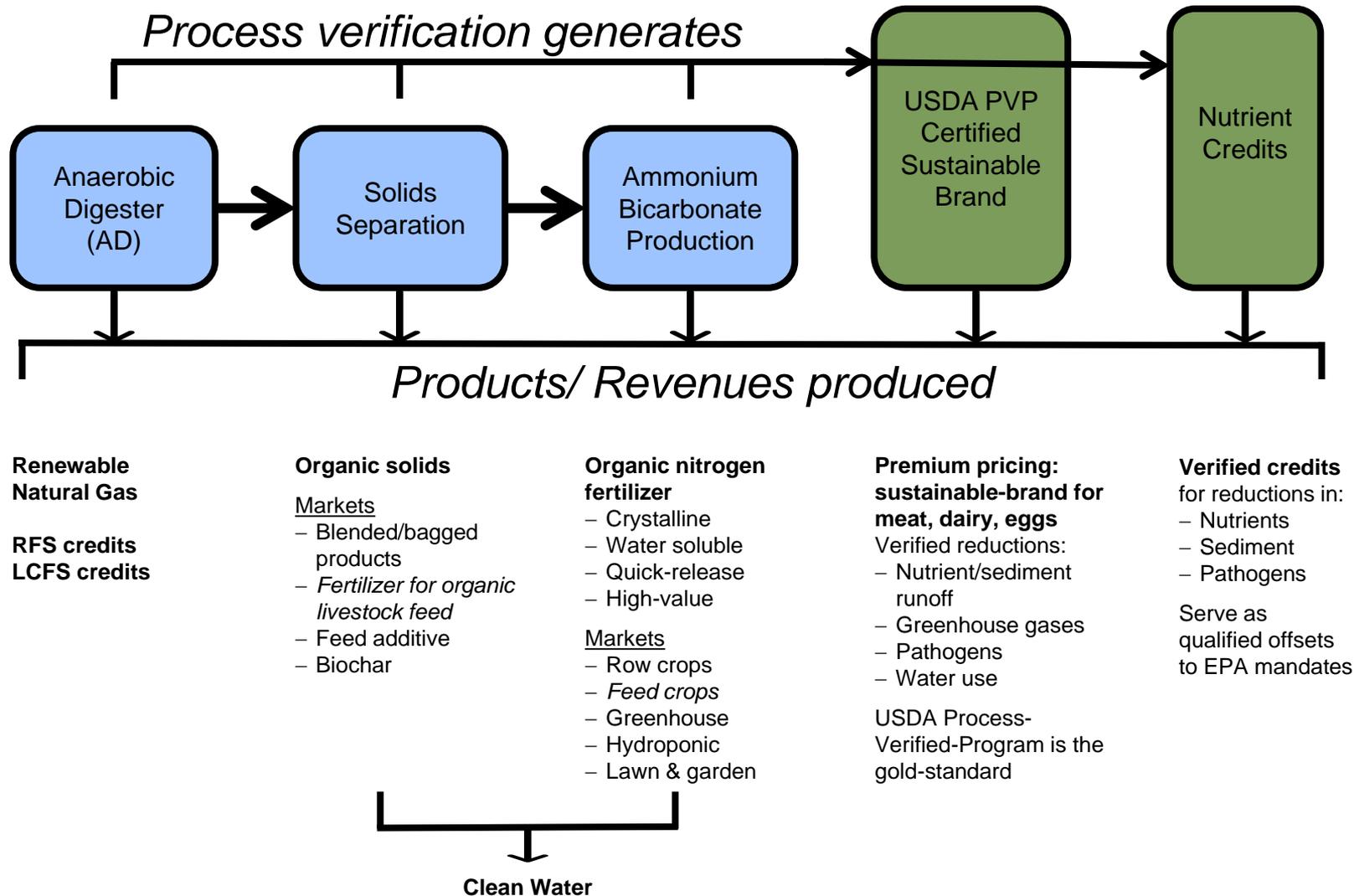
*Bion's 3G technology platform* provides dramatic and verifiable reductions in environmental impacts to air and water, by capturing energy and nutrients from the waste stream that are recycled into value-added organic co-products.

- > Recurring revenues: pipeline-quality **renewable natural gas and credits**; high-value **organic products for fertilizer and feed markets**.
- > The same recovery processes and data also provide organic co-product certification and a **USDA-certified sustainable brand** for the protein products.

*Bion's policy envelope* will establish a fourth recurring revenue stream by allowing nutrient '**credits**' to be sold to the state to satisfy its EPA requirements.

- > Bion's capture of nutrients is measured and 3<sup>rd</sup> party-verified to satisfy EPA requirements for sale as a credit/offset to state and federal mandates.
- > PA Senate Bill 799 creates a procurement program – open to the private sector – for EPA-mandated nutrient reductions to the Chesapeake Bay.
- > Program allows Bion and others with low-cost reductions to compete in a multi-billion dollar space traditionally controlled by government and NGOs.
- > SB 799 will reduce taxpayer cost over 90%; supported by both state and national livestock industry groups; recently passed PA Senate 47-2; now in House.
- > Model for national policy; US EPA supports credit trading as long as it's verified.

# Bion's Treatment Platform



- > Capacity for 9M egg-layers in four locations
  - Agreement in place
  - 1,800-head dairy at one shared location
- > 450 tons per day (tpd) of waste input
  - 565K gallons per day (gpd)
  - 29,462 lbs per day of nitrogen
  - 7,128 lbs per day of phosphorus
- > Two processing locations
  - Regional tolling expansion potential
  - Staged development

# Kreider Annual Revenue Forecast



Rev Category/ Range	Low	High
RNG/ Credits	\$12M	\$16M
Commercial Products	\$18M	\$28M
Nutrient Credits	\$16M	\$24M
Branding	TBD	
Total Revenue	\$46M	\$68M
OPEX	NDA-only	
EBITDA	NDA	NDA
CAPEX	\$60M-\$70M	

Projected OPEX and EBITDA available only under nondisclosure agreement. See 'Risks' and 'Forward-looking statements' regarding range of revenue projections.

# Status Pennsylvania SB 799

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- > Competitive Procurement for verified nutrient reductions
- > Senate passed 47-2, January 31, 2018
- > In House Environmental Resources and Energy Committee
  - Informational hearing conducted in August. No opposition presented. Ches Bay Commission publicly endorsed competitive procurement.
  - 102 co-sponsors (203 House members)
- > Administration has indicated that the bill, with a funding source independent of existing funding, will be acceptable.
- > Bion: The legislative process is very fluid, but we believe that SB799, which combines the interests of both the fiscal conservatives and Growing Greener, has broad support as indicated by the vote coming out of the Senate, as well as the number of House co-sponsors.

- > Bion's technology platform is designed for use on large scale livestock production facilities.
  - Retrofit existing facilities
  - Develop state-of-the-art facilities in new strategic locations
- > Bion's business model can be implemented as:
  - Provide turnkey utility services under a long term contract
  - JV with the producer/ processor
    - Bion's PA-based Kreider Farms project is structured using this approach.
  - Acquire or combine with livestock producer and share equity in integrated entity

# Best Use: Integration

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- > Acquire or combine with livestock producer and share equity in integrated entity.
- > Bion-producer integration generates new recurring revenues.
  - Renewable natural gas and related federal and state carbon credits.
  - Verified nutrient reductions (credits) that can be sold to the state at a cost that is 90 percent less than current solutions.
  - High-value organic fertilizer products.
- > Existing producer can be converted from a low-value, low-margin commodity producer, with minimal enterprise value, into a supplier of high-value branded food products that command consumer loyalty and premium pricing.
  - Increased pricing power, revenues and margins.
  - Transactional opportunity.
  - Step-up in valuation of 2-3X invested capital.

# Opportunity - Beef

The table below was prepared for a beef cattle producer to illustrate the revenues and earnings of a traditional beef cattle feedlot compared to the potential of a similar facility equipped with Bion waste treatment and co-product production. It is NOT a model of an anticipated project.

Beef Revenue/EBITDA Analysis				
	<u>Revenues</u>		<u>EBITDA</u>	
	Feedlot	Bion	Feedlot	Bion
Cattle Ops	\$273M	\$290.4M	\$5M	\$11.3M
Branding	0	15.2M	0	11.7M
Co-products	0	12.5M	0	9.7M
RE/Credits	0	5.3M	0	3.8M
Nutrient Credits	0	6.6M	0	5.5M
<b>Total Rev/EBITDA</b>	<b>\$273M</b>	<b>\$330M</b>	<b>\$5M</b>	<b>\$42M</b>

# Ammonium Bicarbonate

Organic Comparables	\$ per lb N
Quick Release	
Grower's Secret	\$38-\$48
Envirokure <u>Liquid</u>	\$6-\$14
Slow Release	
Alfalfa Meal	\$15.15
Peanut Meal	\$6.15
Blood Meal	\$9.85

## Bion Ammonium Bicarbonate

- 14% ammonia N
- Pure
- Crystalline
- Water soluble
- Quick release

Projected wholesale price for Bion models: \$4-\$8/lb

[Global] Organic Fertilizers Market valued at USD 5.87 Billion in 2016. Projected to grow at a CAGR of 12.08% from 2017, to reach 11.6 Billion USD by 2022.

Markets and Markets July 17, 2017 /PRNewswire/

- > Certified by USDA PVP (Process-Verified-Program)
  - Nutrient reductions
  - Carbon footprint
  - Pathogen kill
  - Water reuse
  - USDA conditional approval pending resubmission and final inspections
- > Compatible with blockchain digital registry
- > Anticipate minimum 5% wholesale pricing premium



- > Received Notice of Allowance on first 3G patent in August 2018; expect additional patents to be filed.
- > Initial application for organic certification of co-products in 2019.
- > Policy: Expect PA Senate Bill 799 in 2019 session. Approved by Senate 47-2 vote in January 2018; now in House. Successful adoption will result in large scale competitively-bid market for nutrient credits. Supported by national and state livestock interests, legislative leadership, and other key stakeholders.
- > Conclusion of technology simulations by Q4 2018.
- > Construction of initial project to produce ammonium bicarbonate in Q1 2019.
- > Construction of Phase 1 of Kreider Farms project in 2019.