EnviroKure

Innovative Aerobic Technology for Organic Fertilizer

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VP Commercial Strategy

USDA ORGANIC

OMRI LISTED® For Organic Use

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 97%

- EnviroKure upcycles nutrients from chicken waste to commercially-viable, environmentally-friendly, organic fertilizers
  - Modified technology used in 100s waste water treatment plants
  - Meets all USDA Organic and Bio-Preferred standards
  - Efficient, cost-effective production

Technology with Solid ROI

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Product Characteristics

- Phosphorus eliminated from liquid
- Pathogen-free
- Minimal odor, acceptable for residential use
- Tested for all precision applications
  - Drip lines
  - Sprayers
  - Hydroponics
- All the micronutrients needed for plant health

Premium Organic Fertilizer

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National Market Opportunity

- Organic Agriculture Fertilizer
  - $1.1 billion and projected to double in 5 years
  - Certified farmland expanding from 6 to 10 million acres *(USDA)*
- Organic Turf Fertilizer
  - $830 million with projected 10% annual growth
  - Sustainable golf course management a growing trend

$2 billion organic fertilizer market is growing fast

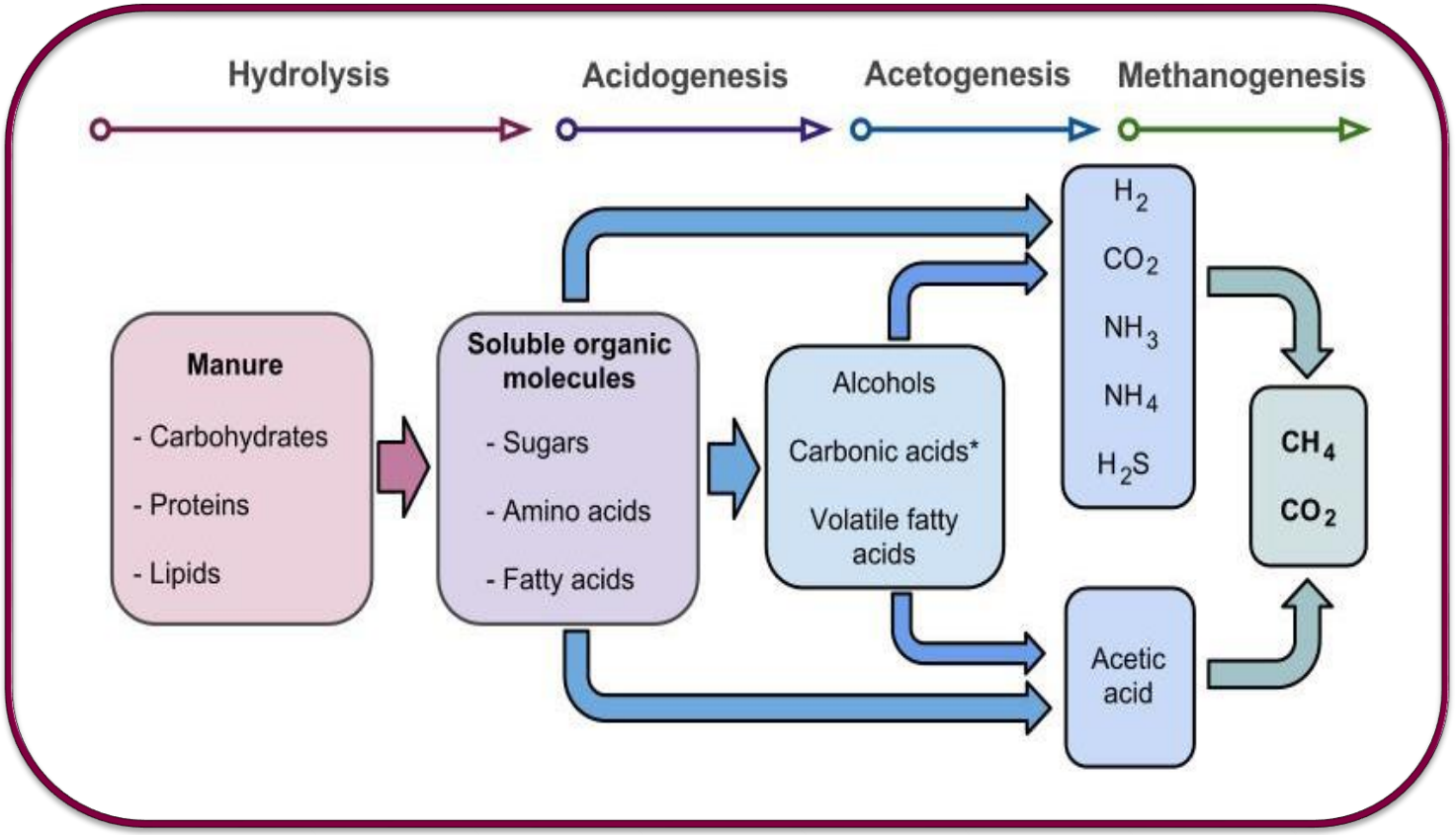
Delaware Market

- Delaware has the potential to safely use chicken-manure based phosphorus-free fertilizer
  - 2,500 farms with 508,000 acres
  - 53 golf courses
  - 238,344 residential lawns
  - 13,472 miles of highways

  Plus playing fields, parks, school campuses and commercial landscapes

A fertilizer produced with our technology could utilize 37,500 tons of chicken manure per year in Delaware alone

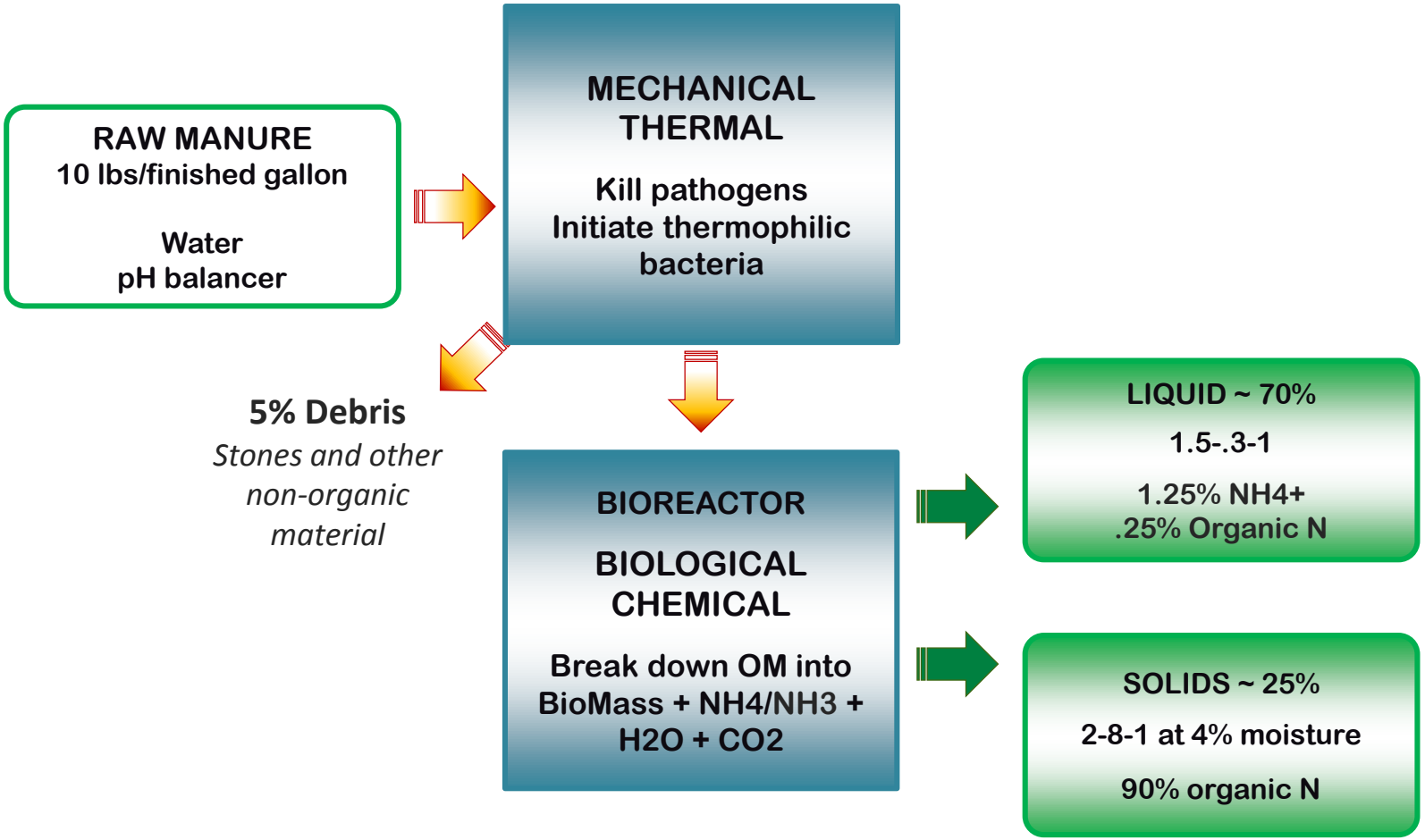
Anaerobic



Aerobic

$$\text{Manure} + O_2 \longrightarrow \text{Biomass} + NH_4 \,\&\, NH_3 + CO_2 + H_2O$$

Process Diagram



Technology

- Plant in Pennsylvania based on 3 pending patents
- Highly Efficient Proprietary Technology
  - Validated in customer field trials
  - Eliminates pathogens/phosphorus
  - Uses 95% of raw material input
- Commercially viable without ongoing government support
  - Delaware, Maryland, Pennsylvania – initial discussions for economic development support
  - West Virginia - taskforce established to explore opportunity for public/private partnership

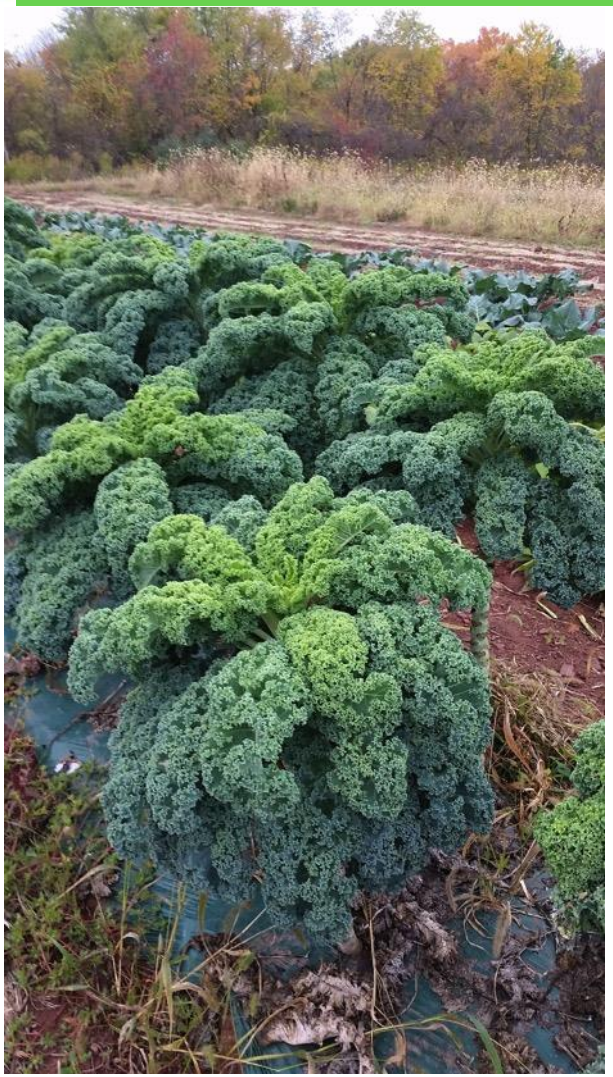
Customer Trials

Hydroponic tomatoes

Hydroponic lettuce

Drip tap lettuce

Kale



Kale with started with conventional, then EK-L 3-.5-1 for final cutting

Results of Comparative trial: EK Kale had 10inches growth in 2 weeks and an additional commercial cutting.

Conventional program continued for final cutting

Conclusions

EnviroKure aerobic technology potential:

- Create new opportunities to utilize chicken manure within Chesapeake Bay Watershed
- Fill the demand for organic fertilizer across the U.S.

EnviroKure aerobic technology is:

- Bay-friendly
- Cost effective
- Commercially-viable without government support

Product Experience

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Wayne Schultz

Perky Hydroponic Gardens, Collegeville, PA

- Wayne has been using EK – 3 for 2 years and has Quantifiable (yield, size) and subjective (appearance, taste) results were comparable to superior in all tests.
- Product tests covered 4 varieties of tomatoes, 2 varieties of cucumbers, 8 varieties of lettuce (primary variety: Tom Thumb), 3 varieties of Romaine, and 5 herbs (basil, parsley, water cress, chives and stevia). *2013, 2014*

•*Torero variety*

Details on next page

Wayne Schultz
Perky Hydroponic Gardens, Collegeville, PA

- Lettuce & Basil
- Production was exceptional
- 15 mL per gallon of reservoir water
- Dutch raft system
- 2x ~100 gallon reservoirs
- Reservoirs drained and cleaned every 10-14 days
- pH 5.5-6.0 temp: ambient
- No additional hydroponic nutrient supplementation. Strictly EnviroKure from seed to head

Boucher Fertilizer, VT

- Organic buffer strips pictured. Farmer reported organic hay fertilized with EK-L 4.5-.5-1 plus potassium sulfate was superior conventionally fertilizered
- Specifics TK
- Boucher Fertilizer has committed to doubling 2014 purchase in 2015

Conventional South Jersey Strawberries

- Trial: 1/2 acre Fall Strawberries (now under cover for spring harvest), field budget $325.
- Objective: To test the efficacy of EK-L Soil Builder 3-.5-1 and verify drip-tape application. Not comparative trial.
- Outcome: Applied 42 gallons mix with equal parts water/.5 acre in 2 applications and had no issues with the drip-tape system. The farmer was pleased with initial response and committed to a sale in the Spring of 2015.
- “I'll know if your product works in 2 weeks and go buy synthetics if it doesn't.”

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David Sheppard

Jersey Legacy Farms

- Organic farmer in Cedarville, New Jersey
- Has 100 acres organic, his brother is 300 acres conventional. David's crop yielded 82 cents/head of lettuce this fall, his brother ~40 cents.
- Trial: 2 acres of Fall lettuce to test EK-L Soil Builder 3-.5-1 to verify application via drip tape
- Outcome: The product was applied at 10 gallons an acre with no issues. The farmer was pleased with the outcome and committed to a sale in the Spring of 2015.

David Sheppard

Jersey Legacy Farms

The farmer harvested his lettuce then planted a cover crop of oats without additional fertilization. He noted a significant decrease in germination time, and increase in overall “vigor” of the oats that were planted where the EnviroKure Soil Builder was applied (left side of photo).

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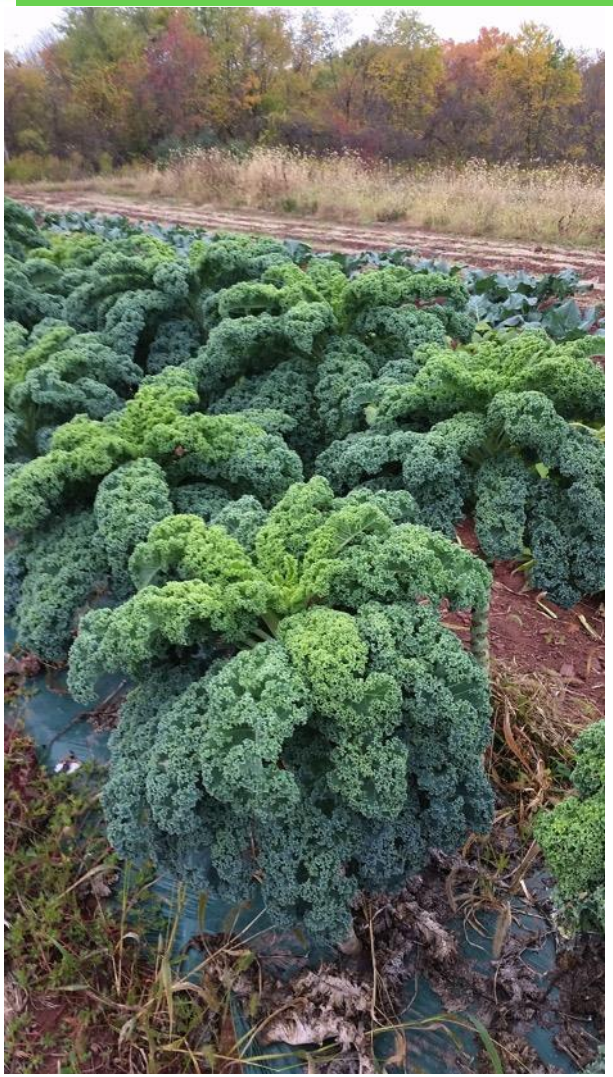
Bauder Farms



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Pinelands Golf Course

Prior to applying EK-L Soil Builder 2-0-1

1 week post application

3 weeks post application

Pinelands Golf Course: Nursery Greens, March 2013

Back up slides

Average Nutrient Analysis

Analysis		Raw Manure	Organic Liquid Fertilizer	Organic Solid Soil Amendment
NUTRIENTS				
Nitrogen				
Total Nitrogen	%	3.04	1.5	1.71
Organic Nitrogen	%	1.50	0.5	1.58
Ammonium Nitrogen	%	1.540	1.25	0.096
Nitrate Nitrogen	%	n.d.	0.0	0.037
Major and Secondary Nutrients				
Phosphorus	%	0.82	0.21	--
Phosphorus as P_2O_5	%	1.88	0.48	7.75
Potassium	%	0.89	0.57	--
Potassium as K_2O	%	1.07	0.69	0.67
Sulfur	%	0.33	0.18	0.84
Calcium	%	5.95	0.71	14.64
Magnesium	%	0.27	0.13	1.03
Sodium	%	0.280	0.43	0.30
Micronutrients				
Zinc	ppm	201	119	463
Iron	ppm	358	266	4180
Manganese	ppm	135	53	761
Copper	ppm	<20	<20	216
Boron	ppm	<20	<20	24
Other Properties				
Moisture	%	58.68	89.15	4.74
Total Solids	%	41.32	10.85	95.26%
C:N Ratio		4:1	5:3:1	9.4:1
Total Carbon	%	13.06	5.8	16.88
Chloride	%	0.43	0.12	--
pH		7.9	7.25	7.9

Delaware Market Calculations

- Delaware alone has the potential to safely use more than 15 million gallons of phosphorus-free fertilizer
  - 2,500 farms with 508,000 acres
    - 50% pasture @ 20 gal/acre/year = 5.08 mil gal
    - 50% crop @ 30 gal/acre/year = 7.62 mil gal
  - 53 golf courses
    - Av urban golf course is 110-120 acres, assumed 60 acres fertilized (excluded rough)
    - 60 acres x 15 gal x 6 applications = 286,200 gal
  - 238,344 residential lawns
    - Av 8000 sq ft (.2 ac) x 10 gal/acre x 4 applications = 8 gal/lawn/year = 1.9 mil gal
  - 13,472 miles of highways
    - 10 ft strip on either side = total 142,264,000 sq ft fertilized = 3265 acres
    - 20 gal/acre/year – 65,300 gal

  Plus playing fields, parks, school campuses and commercial landscapes

TOTAL 14,951,500 gallons = nearly 75,000 tons of manure