CATTLEMEN'S TRADE MARK HERITAGE

LEGACY BEEF CO-OP ESTABLISHED 2023

TEN CORP INC.

ASFMRA SINCE 1929

American Society of Farm Managers & Rural Appraisers

IOWA CHAPTER

Increasing Iowa's Soil Health and Land Value Via Cattle Production

Chad Tentinger

03.20.2024

Agenda

- Intro/Organization Overviews
- Beef and Crop Production Model
- Improved Soil Health and Land Values
- Q&A

Principal Developer and Leadership

4th generation cattleman with the goal of improving cattle production/processing, to pass the family business to the 5th generation.

In addition to the 30,000 head of cattle he raises annually, Tentinger is the Founder/Owner of TenCorp, a premium cattle barn developer. TenCorp's progressive designs and systems have evolved a 100+ year business model into one that now provides solutions for animal health, comfort, environmental stewardship and increased producer profitability.

TEN CORP INC.

A co-op founded on the premise that together we are better.
Through this partnership, we can improve and fix an industry on an unsustainable path for the family producer.

LEGACY BEEF CO-OP ESTABLISHED 2023

Cattlemen's Heritage Beef Company is developing a state-of-the-art beef processing plant located on a 132-acre site in Mills County, IA., approximately 6 miles S.E. from Omaha/Council Bluffs.
The facility will process 525,000 head-of-cattle per year and 2,000 per day. Directly employ 800 people, groundbreaking in 2025. 18-24 month build period.

CATTLEMEN'S TRADE MARK HERITAGE

A New Generation of Processing

Traceability

- Farm to Consumer
- Multiple Data Capture Throughout the Plant
- Complete Transparency and Data Feedback Loop from Plant to Farm and Farm to Plant
- 100% Guaranteed U.S. Beef

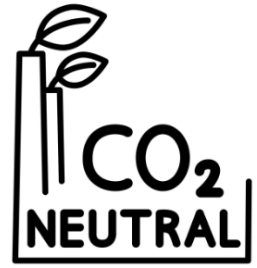
Family Farm

- Family Farm Raised Cattle
- Boxed Beef Cutout Pricing
- Co-Op Shackle Ownership/Cattle Delivery Obligation Model
- Highest Quality Beef

Advanced Technology

- Reduced labor and Cost Through Robotic Technology
- Data Collection and Feedback Loops with Farms
- Maximized Cattle Quality Grades and Meat Quality from Better Flow and Spacing Throughout Plant
- Best in Class Animal and Employee Environment

Sustainability



- Carbon Reduced Processor
- Continuous Improvement Through Dual-Feedback Loop
- Transparency and Traceability In-Plant and On-Farm
- Cattle Pricing Model and Meat Sales Margin Participation

Positions farmers for the Next Generation

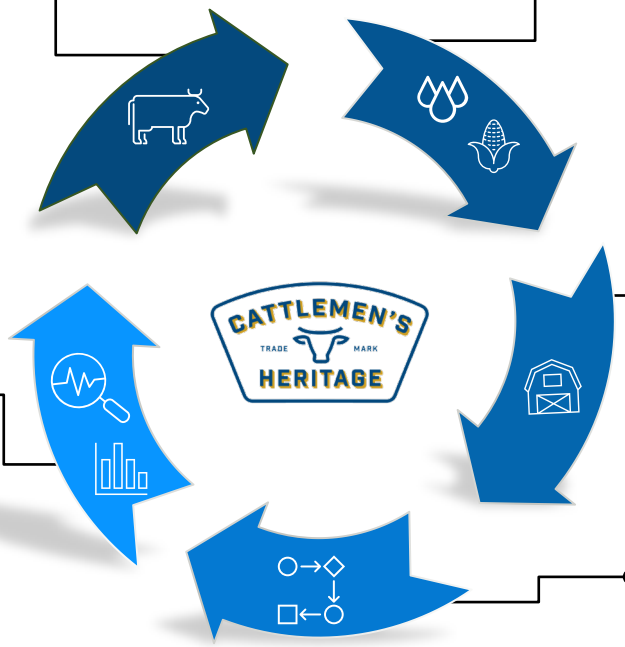
An Integrated System for Continuous Beef Quality Improvement

1. RANCHER/BREEDER

Tracking of 530K cattle annually from birth through processing. An industry first that allows for the optimization of genetics, cattle stock and products.

2. PRODUCER/FEEDER

Better stock production results in greater, more efficient gains with improved quality gains and higher profit margins.



3. SHACKLE SPACE

Provides a combination of quality control , while promoting supply stability, animal health throughout the growth cycle.

5. DATA ANALYSIS AND SHARING

Rancher/Feeder partners receive an industry first, full spectrum of data and analytics.

This “calf to counter” closed loop data output provided back to Rancher/Breeders and Producers/Feeders allows for the optimization of stock and continuously enhanced product.

4. PROCESSING

Full access and transparency at point of processing through tracing and tracking technology at customized data collection points.

Providing a full spectrum of traceability and data collection on every animal cut, from source, quality/grade to health/condition.

Products with Verifiable Attributes

Graded Beef
Traditional Retail/Grocery
Food Brokerages
Restaurants
International Channels/Edible Offal

Pharmaceutical
Insulin
Allergy Medicines
Vitamins
Laboratory Research Materials

Hides
Auto Industry
Sports Equipment
Fashion/Clothing
Shoes

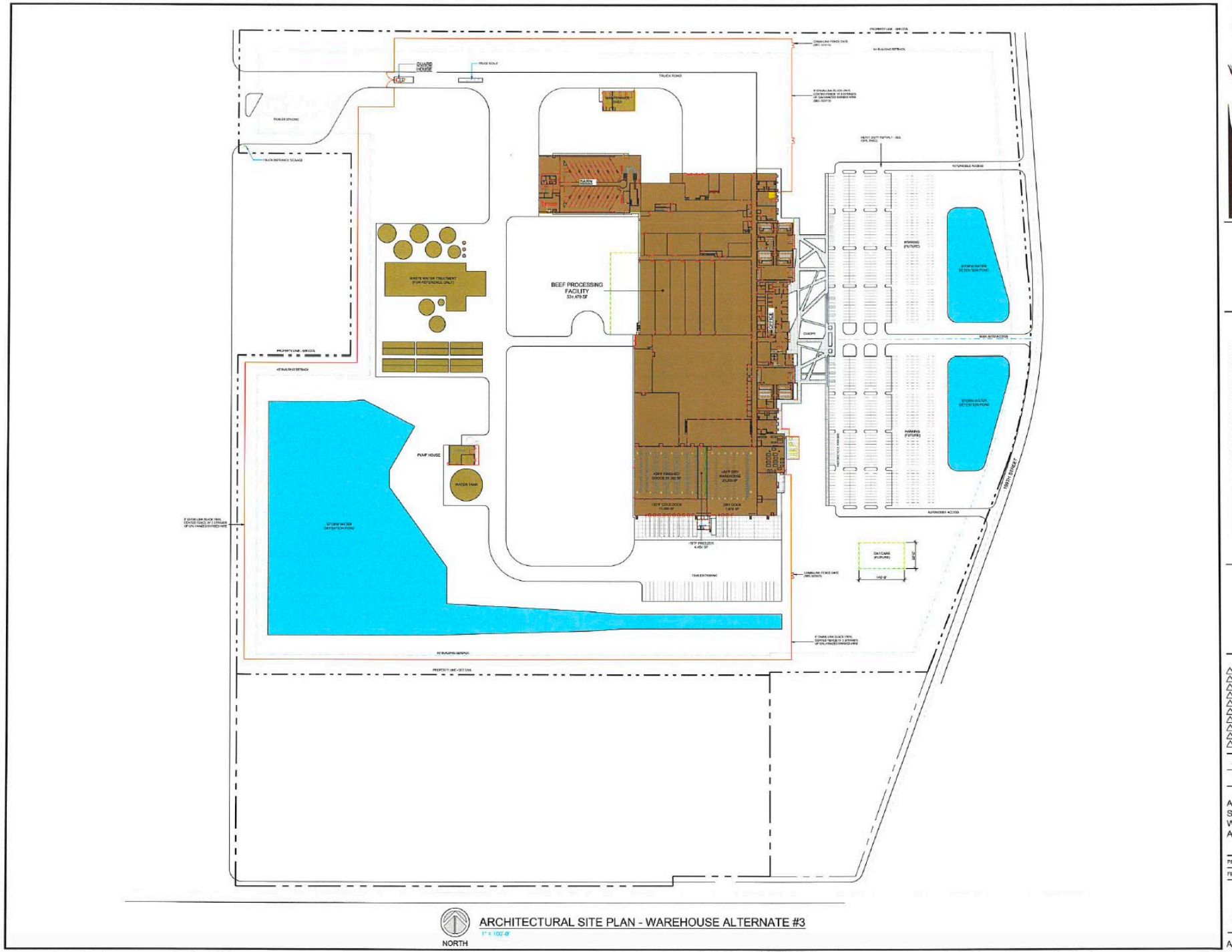
Inedible Offal
Bio Diesel
Cosmetics
Feed Manufacturing

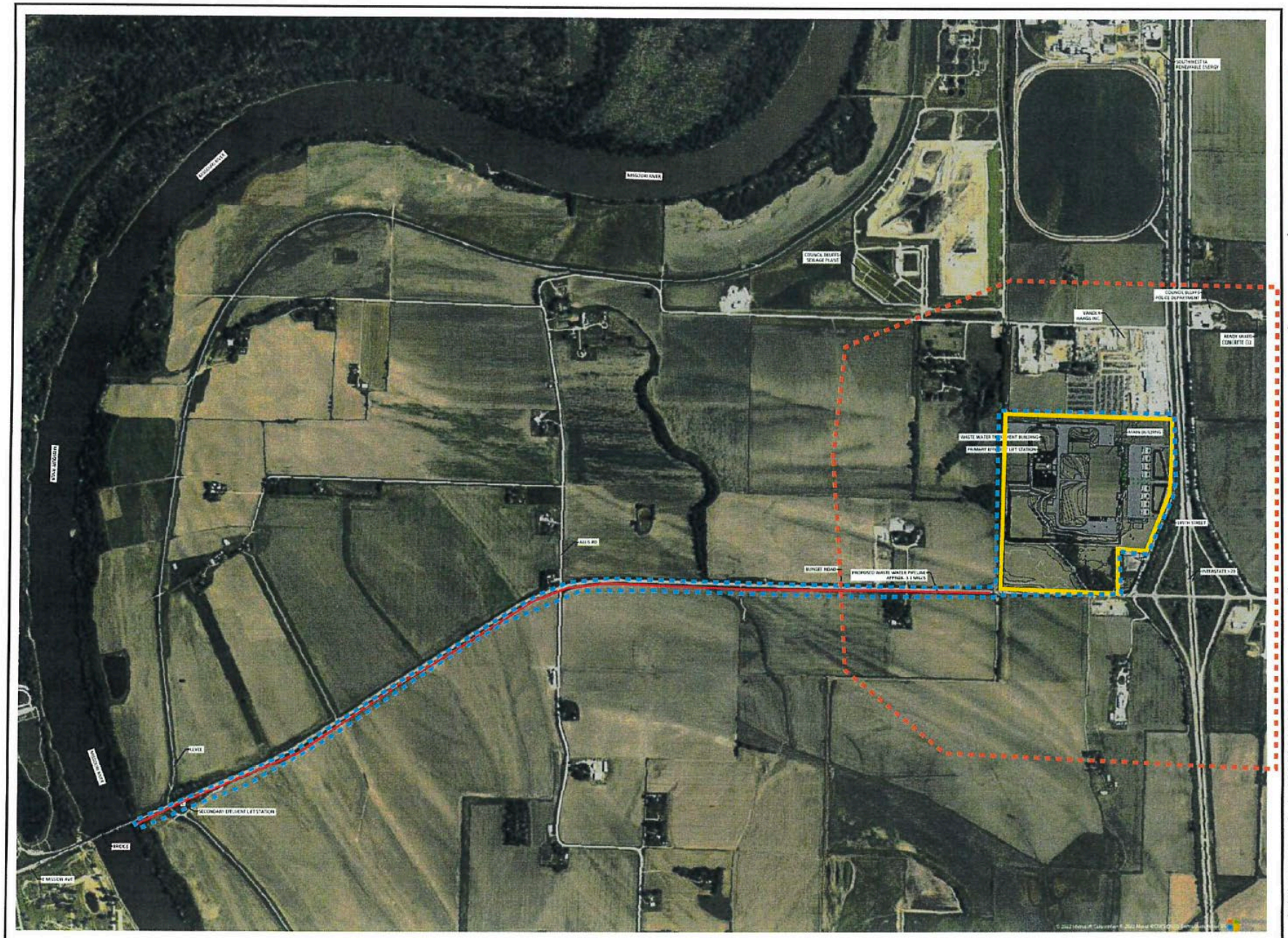
Pet Industry
Feed
Chewables
Toys
Nutraceuticals

Cattlemen's Heritage - Iowa
New Processing Facility Concept Renderings

Site Plan

- Mills County, IA
- 132 Acres Purchased





PROPOSED EFFLUENT PIPELINE PLAN VIEW

NORTH

Area of Potential Effect - Construction

Approximate Area of Potential Effect - Visual

ESI DESIGN SERVICES

DGA CONSULTING ENGINEERS

NEW BEEF PROCESSING FACILITY
CATTLEMEN'S HERITAGE BEEF COMPANY
NW CORNER BUNGE ROAD & I-29
MILLS COUNTY, IA

REVISIONS

DATE	JOB NO
12/01/2022	22-1267-01
DWG. By	CHKD By
DDR	DLD

SHEET TITLE
PROPOSED SITE WASTE WATER EFFLUENT PIPELINE ROUTE PLAN VIEW

PRELIMINARY DWGS.
FINAL CONST. DWGS.

SHEET NUMBER
C420

CIVIL

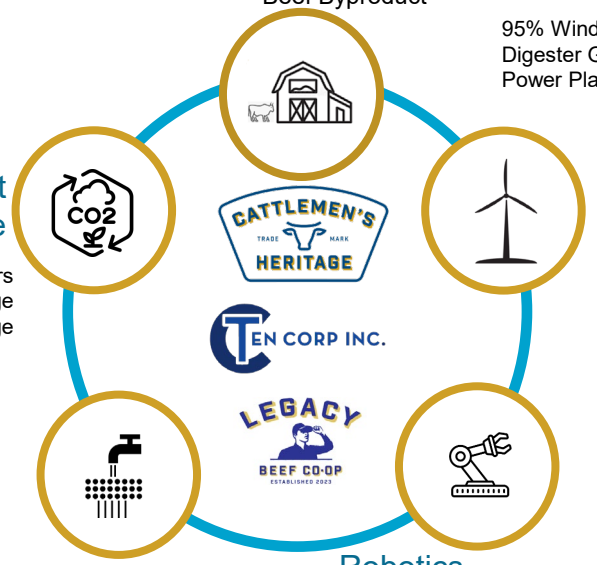
A New Beef and Crop Production Model

Deep Pit Cattle Barns

Our Producer Co-op Utilizing Local Manure Collection/Application
Compressed Delivery Logistics
Increased Cattle Yield. Decrease in Loss/Sickness
Decrease in feed and Water Usage
Beef Byproduct

Energy Inputs

95% Wind Energy Powered
Digester Gas Fed Back to Power Plant



Carbon Credit Exchange

Buy Credit's from Producers
Sell Credits on Exchange
or Create an Exchange

Advanced Water Filtration

Energy Efficiency and Savings
Clean Algae Based System

Robotics

Reduction of 400 workers Vs. Traditional Plant
OReduced Energy Usage
Efficient and More Productive Operations

Organic nature of material, builds back topsoil, greatly reducing soil depletion.
Year to year residual benefits, creating more productive and valued farmland

V e r s u s

Worldwide Shipping Emissions

Cargo Ships
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Production

Plant energy
Input Supply Chain
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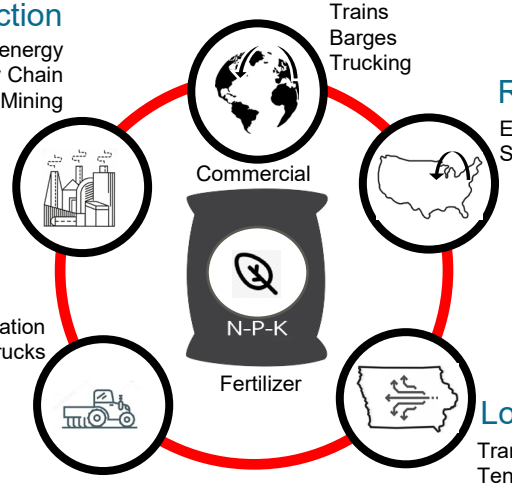
Regional Transport

Elevator
Storage



Multiple Field Applications

Transportation
Tender Trucks

Local Distribution

Transportation
Tender Trucks

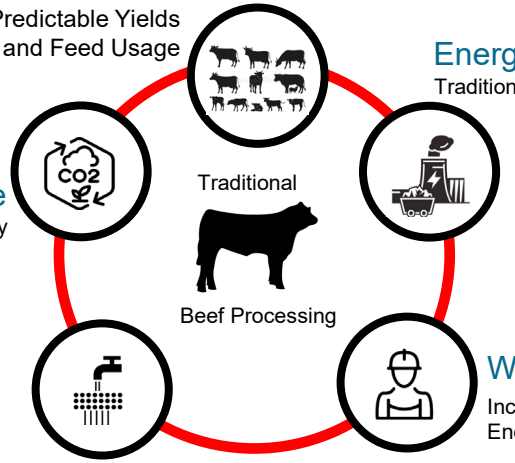
Only effective for one season. No residual benefit. Contributes to depletion of soil

Feedlot

Little/No Manure Collection
Less Predictable Yields
Greater Water and Feed Usage

Energy Inputs

Traditional Energy Inputs



Carbon Credit Exchange

No Opportunity

Workforce

Increased labor requirements
Energy intensive

Utilizes outdated energy intensive and inefficient methods

Traditional Water Filtration

Increasing Land Value By Building Soil Health

Soil Health

Soil Health is the continued capacity of soil to function within natural or managed ecosystem boundaries to do the following:

- Sustain plant and animal productivity
- Maintain or enhance water and air quality
- Promote plant and animal health

Soil Health Indicators and Inputs

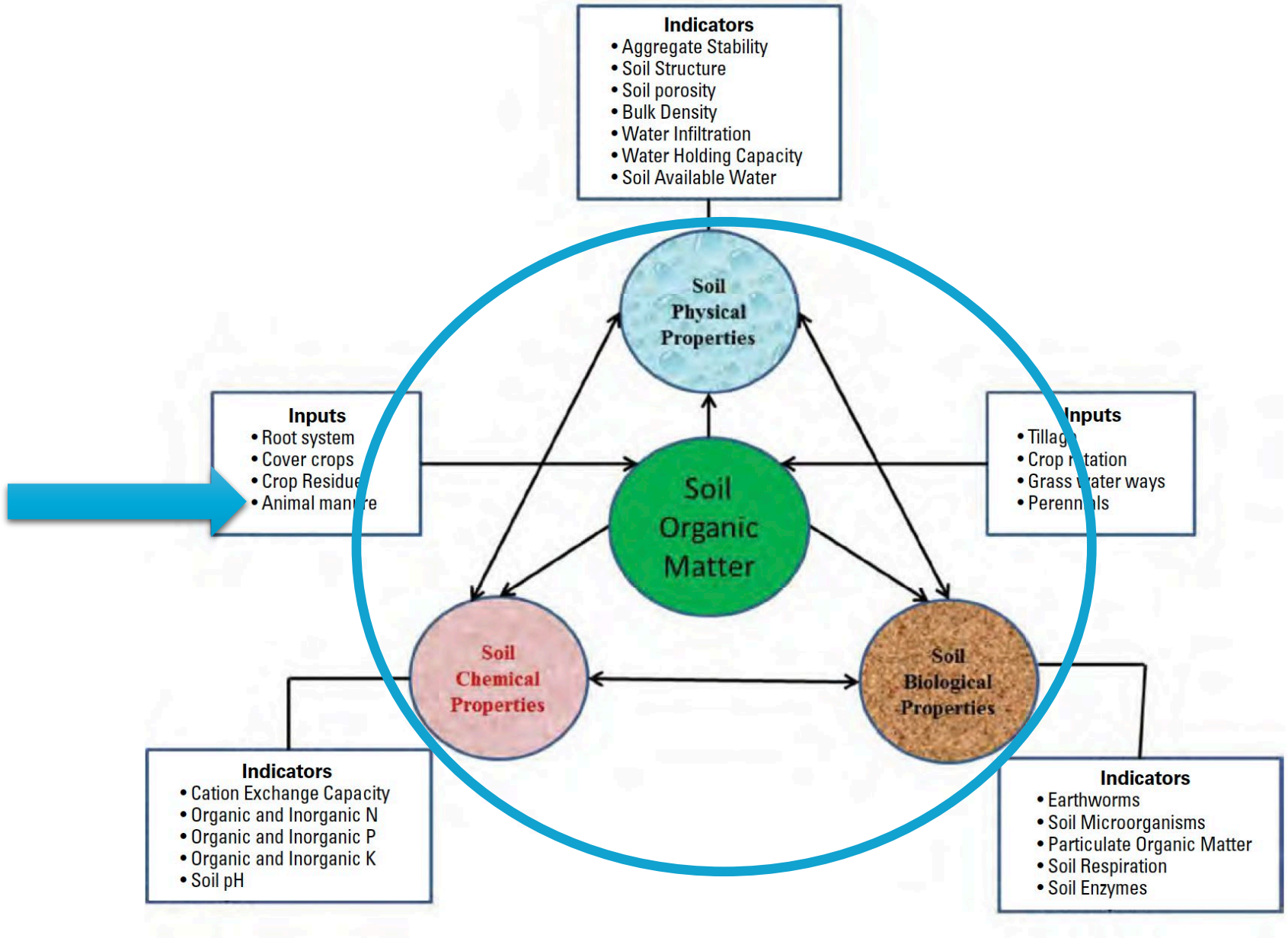


Figure 1. Relationships between soil health indicators as affected by organic matter and management inputs (Al-Kaisi, 2015).

What is the Main Contributor to Soil Health?

Soil Organic Matter (SOM) is only 1 to 6 percent of the total soil mass, YET it is the single most important contributor to soil health*

- Provides nutrients that are essential for plant and soil organisms' growth.
- Conserves soil nutrients in their organic forms to be released slowly in the soil
- Produces hormones that help plants to grow.
- Provides food for soil microorganisms.
- Binds soil particles together into aggregates that improve soil structure.
- Improves soil water holding capacity for plant use.
- Enhance nutrient absorption capacity.

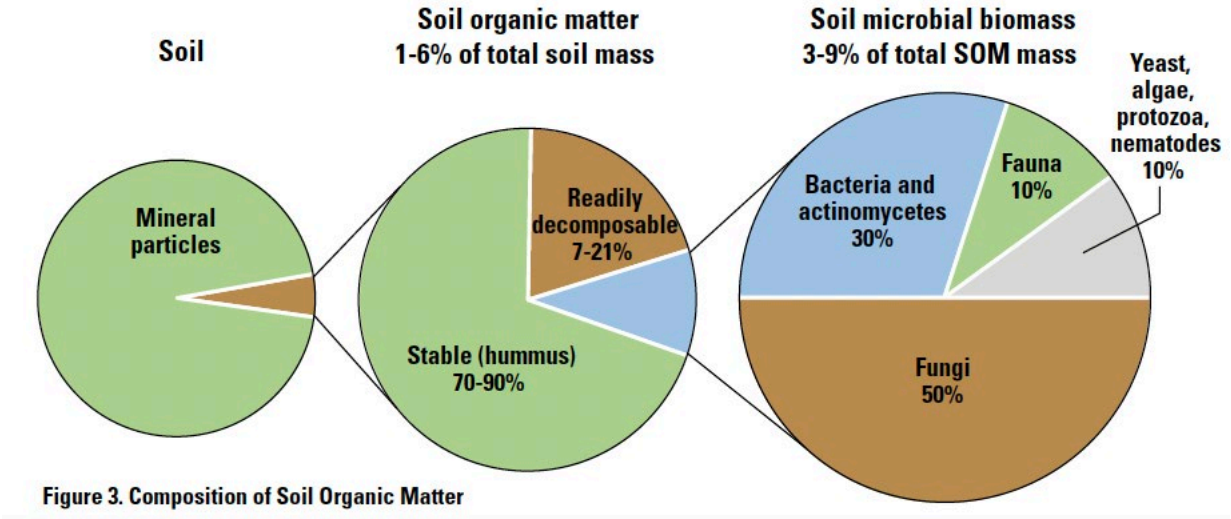


Figure 3. Composition of Soil Organic Matter

*Iowa State University-Extension and Outreach Study July 2016

Animal Manure: A Soil Health Solution

- Animal manure contributes to soil health improvement, as a plant nutrient source
- Animal manure is comparable to commercial fertilizer if applied according to a sound nutrient management plan.
- Nitrogen and other nutrients from animal manure are slowly released to plants through mineralization process.
- Animal manure contributes to soil organic matter, improving soil aggregation, water infiltration and soil water-holding capacity, and increases the diversity of soil microorganisms.

*Iowa State University-Extension and Outreach Study July 2016

Manure Impacts are Far Reaching

Manure application has an impact on ALL of these

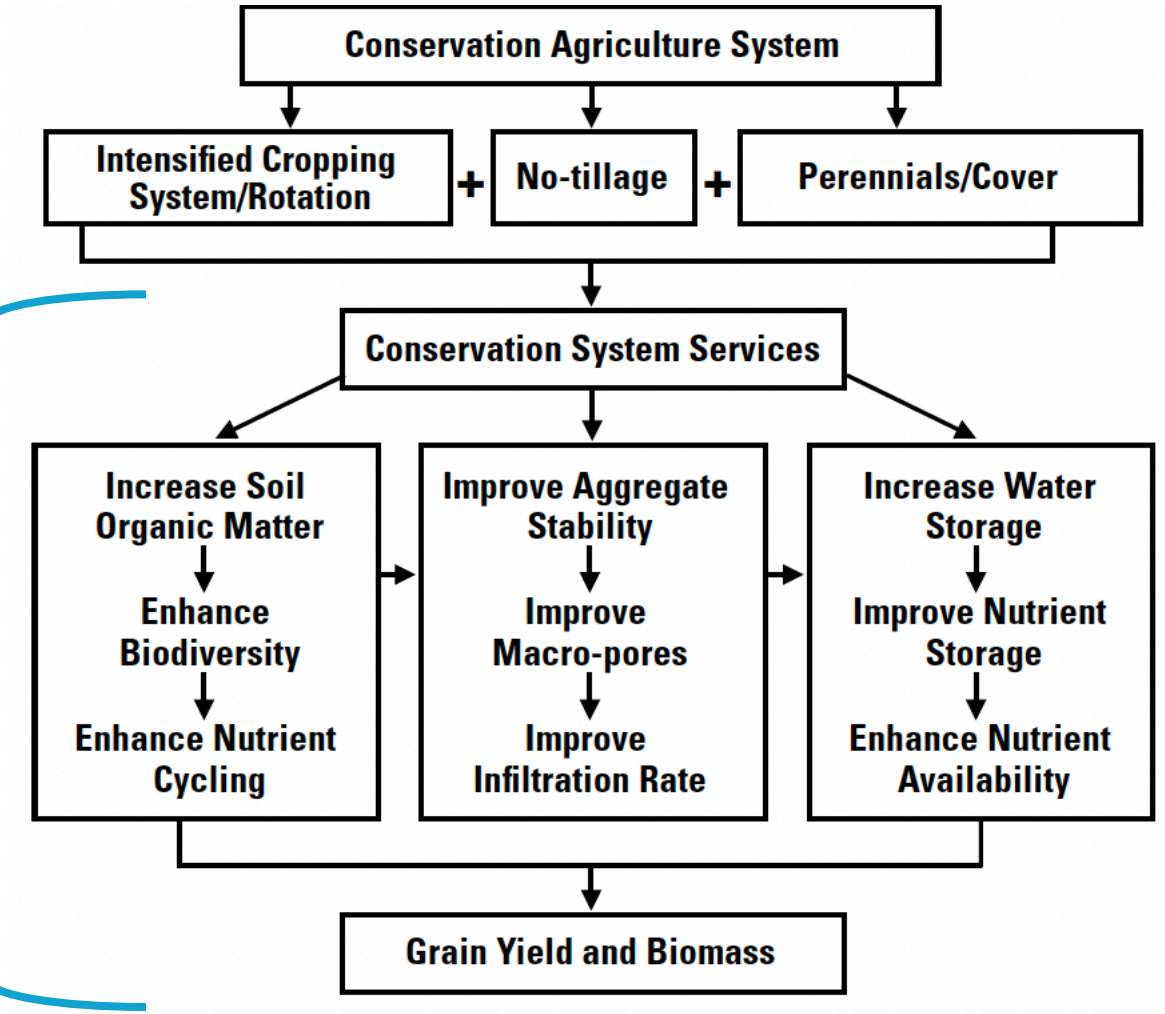
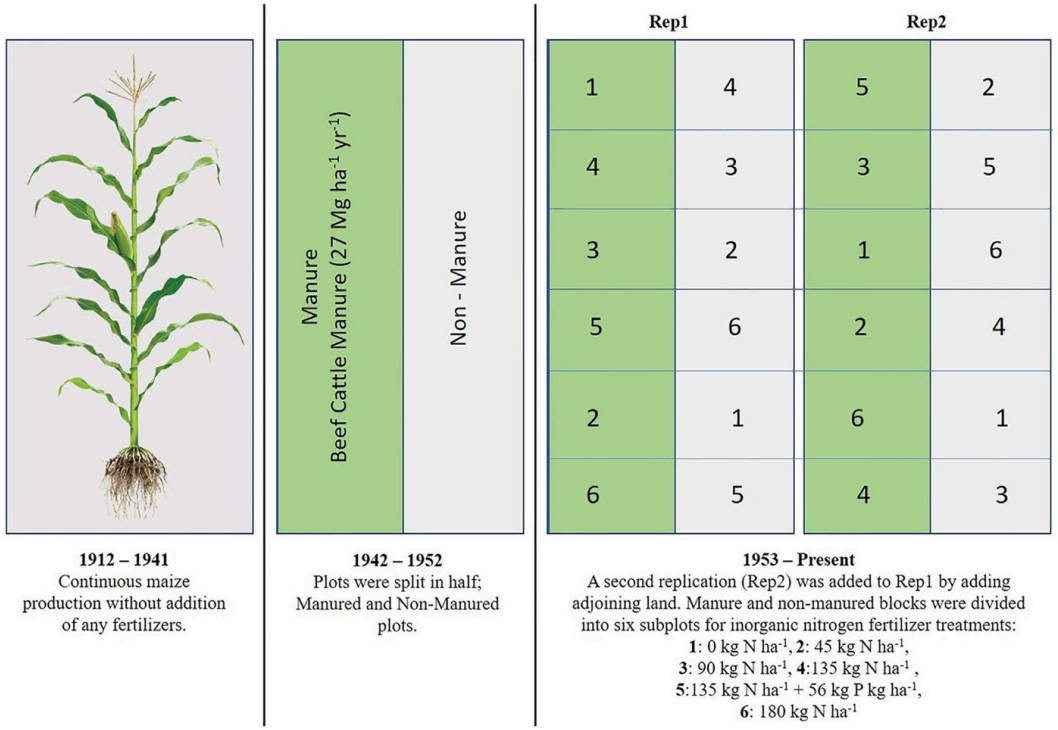


Figure 5. Systems approach for building soil health and productivity (Al-Kaisi, 2015).

Results: Manure Application = Higher Land Value

University of Nebraska-Lincoln: Knorr Holden Plot: the oldest experimental irrigated corn plot in North America, established in 1910. In 1942, the plot was subdivided to include beef cattle manure applications, and in 1953, inorganic nitrogen fertilizer was introduced as a subplot in the experimental design.

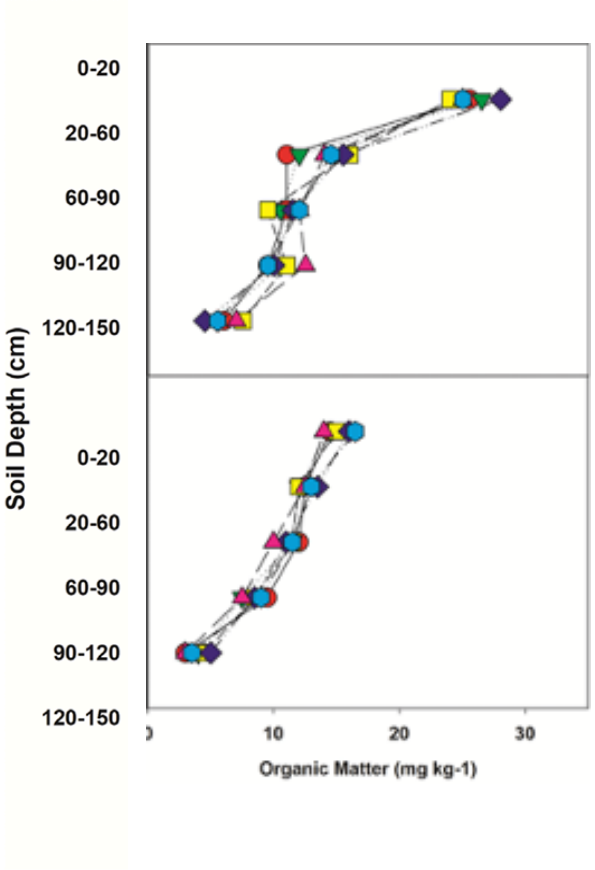


Over a period of 77 years of applying manure to soil:

- Soil organic carbon (SOC) **increased** by more than 60% (to 1.4%) from non-manure plot (0.8%)
- Soil organic matter (SOM) **increased** by more than 60% (to 2.7%) compared to the non-manured plot at (1.6%)

FIGURE 1 Dynamic plot design of the Knorr–Holden Plot

Knorr Holden Plot: SOM-Manured vs. Non-Manured

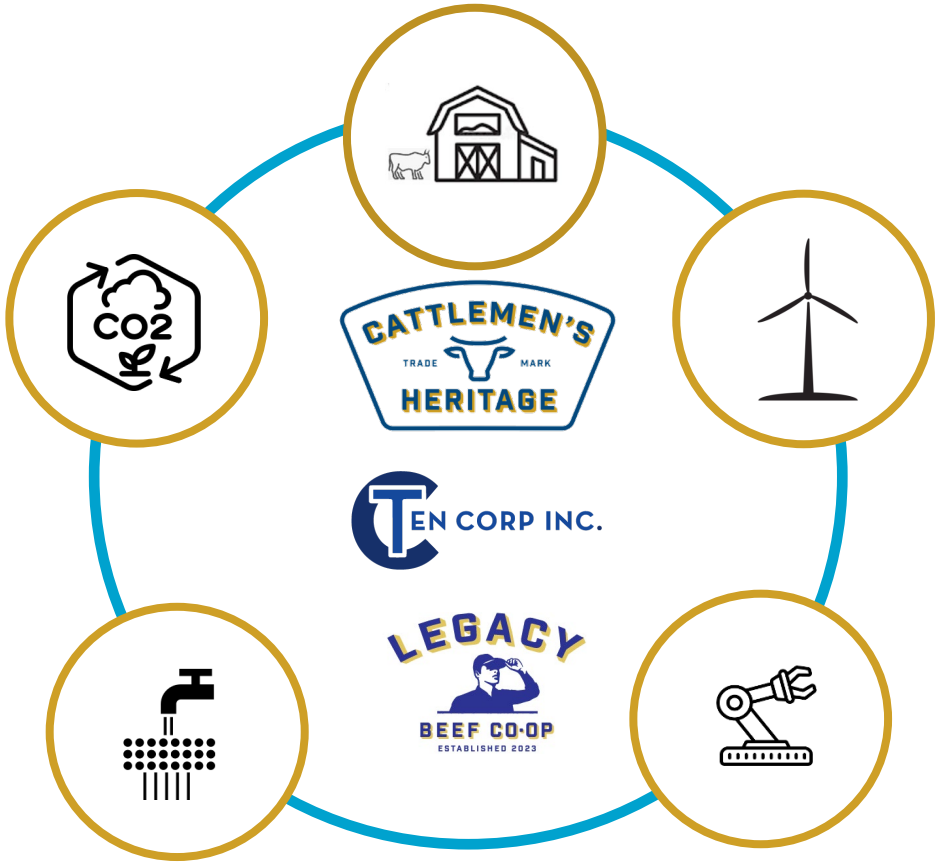


A: Manured Plot

B: Non-Manured Plot

FIGURE 11 Soil nitrate-N, Olsen phosphorus, and organic matter at different sampling depths in different inorganic N rate treatments in the (a) manured and (b) non-manured plots at the Knorr–Holden Plot

A Better Way Forward for Manure Production and Application



TenCorp Cattle Barn-Operational and Environmental Benefits:

- Less Feed
- Less Water
- Less Pharma
- Less Death Loss
- Less Fuel
- Less Labor
- Less Equipment
- Less Land Footprint

- Improved Cattle Performance
- Improved Cattle Comfort
- Improved Health
- Improved Yields
- Improved Grades
- Improved Hides
- Improved Environmental Impact
- Improved Manure Utilization

TEN CORP INC.

A Better Beef Manure Management Model

Benefits of Fully Captured Clean Manure
TenCorp, Inc. Designed, Deep Pit, Slat Floor Cattle Barn

Cattle Manure Production = 6.50 Gallons per Head Space-per Day
2,275 Gallons per Head Space-per Year (350 days)

Manure Application Rates = 3,500-4,500 Gallons per Acre (row crop land)
1000 Head Space Barn Example

- 1,000 head spaces@2,275 gallons per year = 2,275,000 total gallons of pit manure per year
  - 3,500 Gallons per Acre Example
    - 650 acres corn@ 200-to-275-bushel yield
    - Equals130,000 to 178,750 bushels of corn
    - 130 to 178 Bushels per Head Space
  - 4,000 Gallons per Acre Example
    - 570 acres corn@ 200-to-275-bushel yield
    - Equals 114,000 to 156,750 bushels of corn
    - 114 to 156 Bushels per Head Space
  - 4,500 Gallons per Acre Example
    - 505 acres corn@ 200-to-275-bushel yield
    - Equals 101,000 to 138,875 bushels of corn
    - 101 to 138 Bushels per Head Space

RESULT: No Additional Commercial Fertilizer or Micro-Nutrients Required.
In general, 2-head spaces produce more than adequate fertilizer through the manure to fertilize 1-acre of row crop farmland. The 1-acre produces more than enough feedstuffs to feed the 2-head spaces annually.

Current/Iowa Example

Precision MANAGEMENT SERVICES

Soil Test Historical Summary

Farm: Ramsey 22
Field: E 1/2

Date	Count	LabID	P ppm	P2_Bray ppm	K ppm	pH none	CEC meq/100g	OM percent	Zn ppm	S ppm
May 2023	121	Midwest	63	101	355	6.7	25.6	5.0	5.2	7
Nov 2019	30	Midwest	66	106	301	7.2	25.2	4.8	0.0	0
Nov 2015	30	Midwest		105	255	7.1	26.7	4.8	0.0	0
Feb 2012	30			99	298	7.2	24.6	4.1	0.0	0
Jun 2006	70			117	347	7.3	22.6	4.1	3.5	18

Date	OM* Percent
May 2023	5.0
Nov 2019	4.8
Nov 2015	4.8
Feb 2012	4.1
Jun 2006	4.1

*OM=Organic Matter

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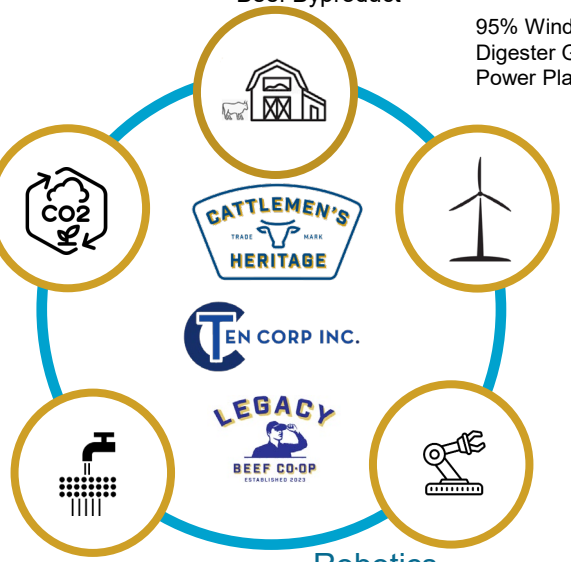

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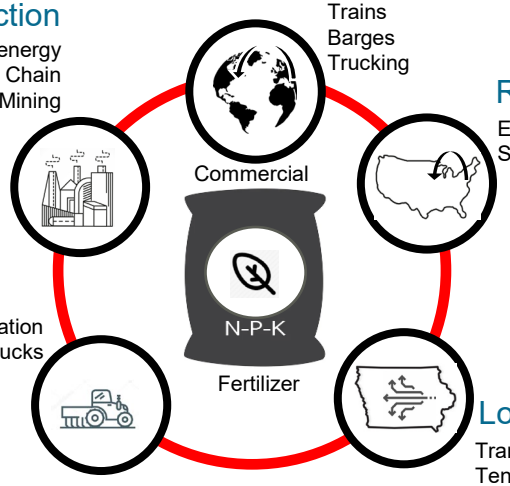

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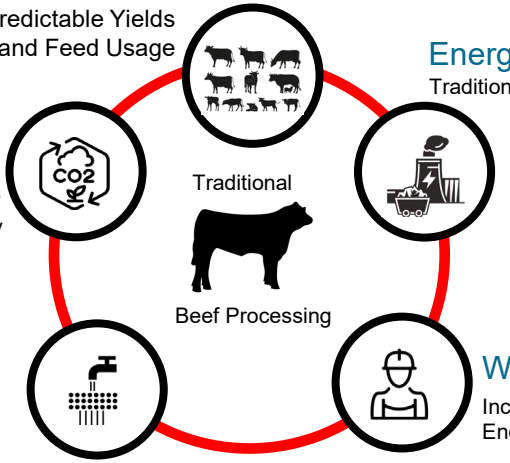

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Conclusion

There is a better way. Farms with higher production capacity as a result of good soil health (high Soil Organic Matter) are in stronger demand and command a higher marketplace value.

1. Beef manure can be a safe and more effective primary fertilizer solution.
2. Soil productivity and land values benefit from manure usage.
3. All of this can be done in a more efficient, profitable manner with a positive environmental impact.

Q&A

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TEN CORP INC.

Thank you!

Questions/Follow-up:

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Phone: 712.229.5303