



Adding Value to Your Farm

Tom Ruggieri
Rebecca Graff
Fair Share Farm















1947 Allis Chalmers G
with electric conversion



1962 International
Farmall 504





3-Legged Sustainability Stool

Sustainability

Economic Leg

Good Jobs
Fair wages
Security
Infrastructure
Fair Trade



Environmental Leg

0 Pollution & Waste
Renewable Energy
Conservation
Restoration

Social Leg

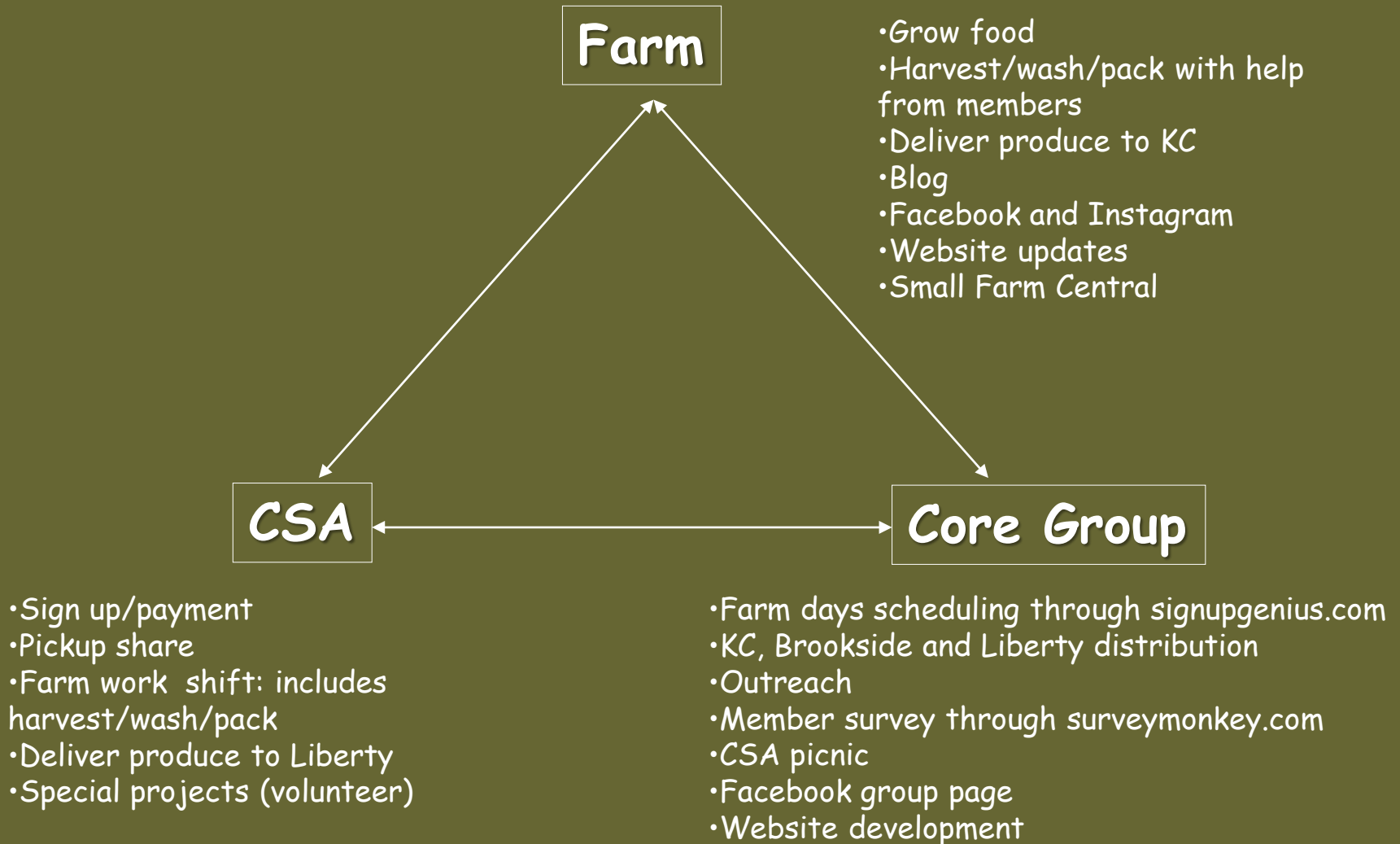
Working conditions
Health services
Education services
Community & Culture
Social justice

Quality of Life / Genuine Wealth / Genuine Progress

Community Supported Agriculture (Social Leg)



Community Supported Agriculture













Kansas City Food Circle

Connecting Kansas City with local & free range farmers

EAT. CONNECT. PLAY.



JOIN US AT ONE OF OUR EVENTS

Classes, Happy Hours, & Farm to Table Dinners are only a few of the events we have in store for you.



FIND YOUR FARMER

Take a moment and meet our amazing farmers and find the great food you are looking for.



BECOME A MEMBER

Go all in and spend a year reconnecting with your food and the people who grow it.

Economic Leg

Associative Economics

- ❖ Pioneered by Rudolf Steiner
- ❖ Free-will association
- ❖ Group action independent of markets or the State
- ❖ CSA is noted as a prime example of associative economics



Sustainability is a *Goal*

Improve constantly and forever

--- Dr. W. Edward Deming, *14 Points for Management*

Farm Goals

- Economically sustainable
- Reduce off-farm inputs
- Improve soil fertility
- Utilize all land inside deer fence
- Reduce emissions and fossil fuel dependence
- Legally sound
- Healthy plants and animals
- High level of community involvement
- Farm secured for this and future generations
- Diverse homestead for farmers
- Comfortable work & living environment
- Community space for workers, visitors, activities
- Time and space for creative pursuits
- Farmers able to leave the farm once a year

Environmental Leg

- ❖ Biological farming
- ❖ Renewable energy sources on farm
- ❖ Renewable energy purchases for electricity (farm and home)

Farm to Ferment



Farm-to-Ferment Our Recipe

- ❖ Step 1: Raising the crops
- ❖ Step 2: Preparing the ingredients
- ❖ Step 3: Fermentation
- ❖ Step 4: Enjoying



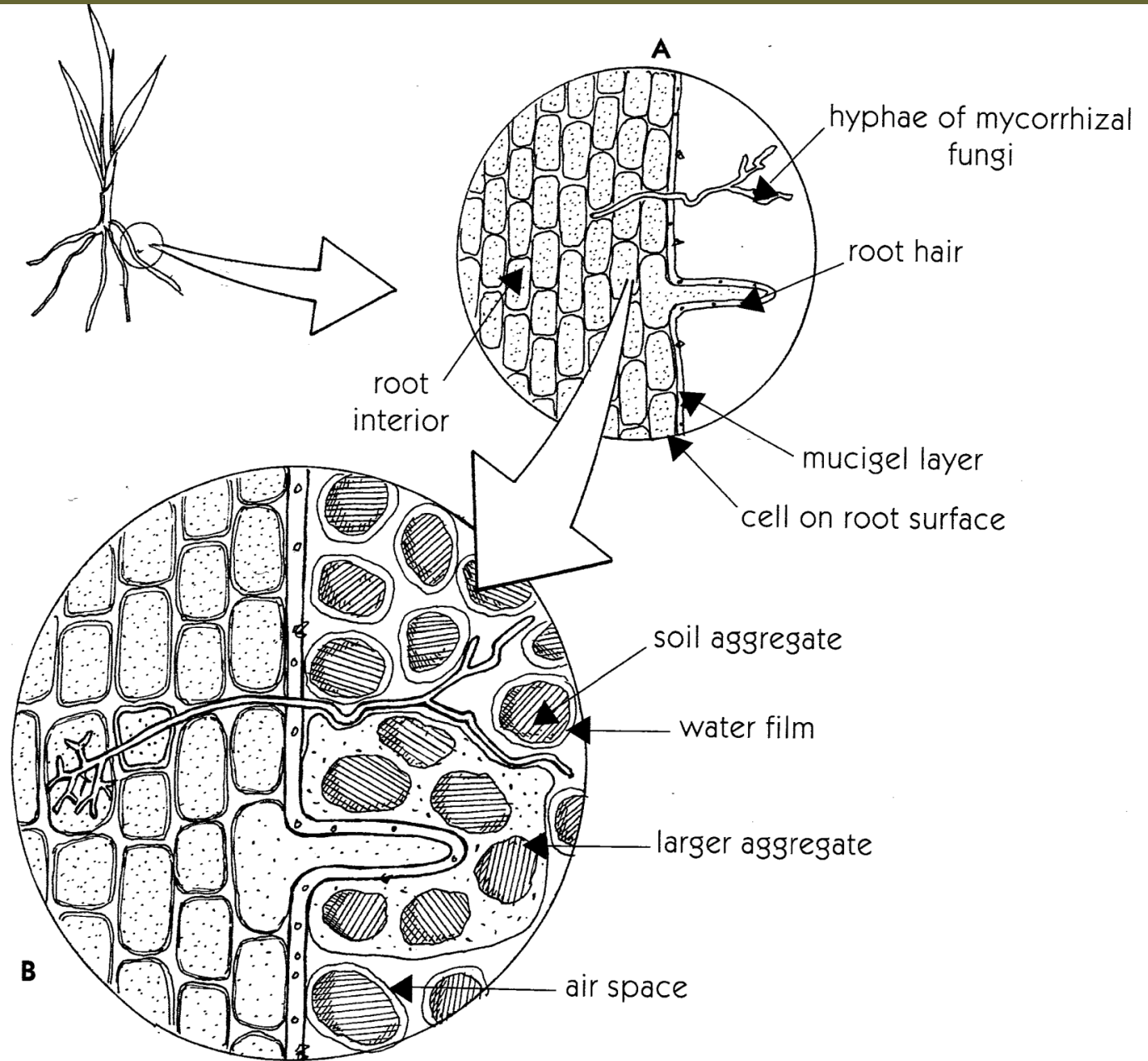
Raising the Crops---Biological Farming

- ❖ You are what you eat (literally)
- ❖ Therefore, you are what your plants eat
- ❖ Think of the soil as the plant's stomach, feed it a diverse and balanced meal

Raising the Crops---Biological Farming

- ❖ The soil takes in solid food and solubilizes nutrients for the plant, just like our digestive system
- ❖ Plants and soil microorganisms have a co-evolved symbiotic relationship
- ❖ Soil microbiome
- ❖ Treat your soil like the living thing it is
- ❖ Carbon sequestration, water quality, biological diversity...

Co-Evolved Symbiosis



A photograph of a greenhouse interior. The structure is made of a silver metal frame with curved ribs. Inside, rows of green corn plants are growing, with some showing yellowish tassels. The plants are densely packed. The background shows more of the greenhouse structure and some greenery outside.

Feed your soil a regular meal

Grow

Feed your soil a regular meal

Most SOM is from the air, water and sunshine on the farm



Chop



Feed your soil a regular meal

Chew



Feed your soil a regular meal

Masticate

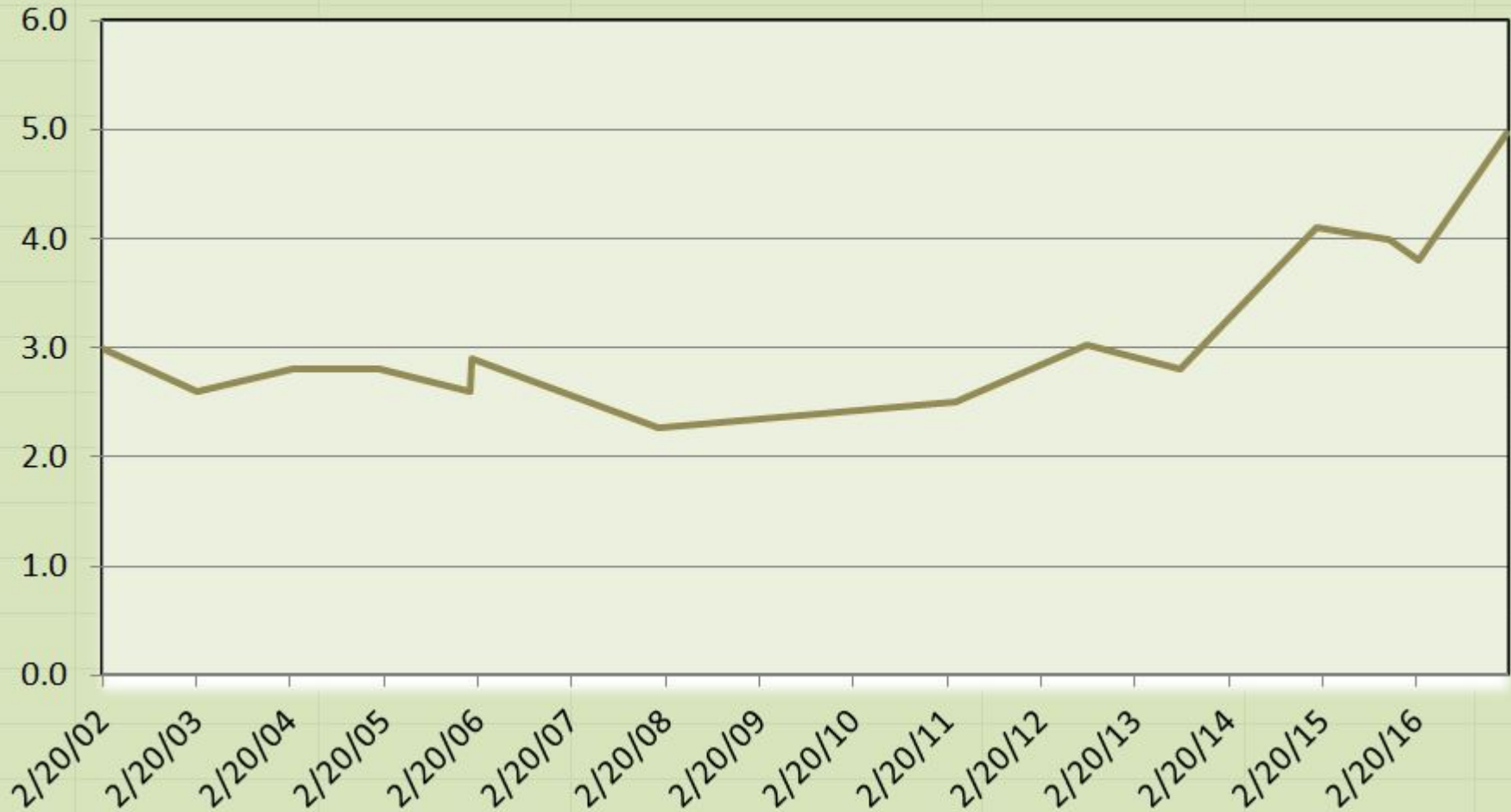


Feed your soil a diverse diet



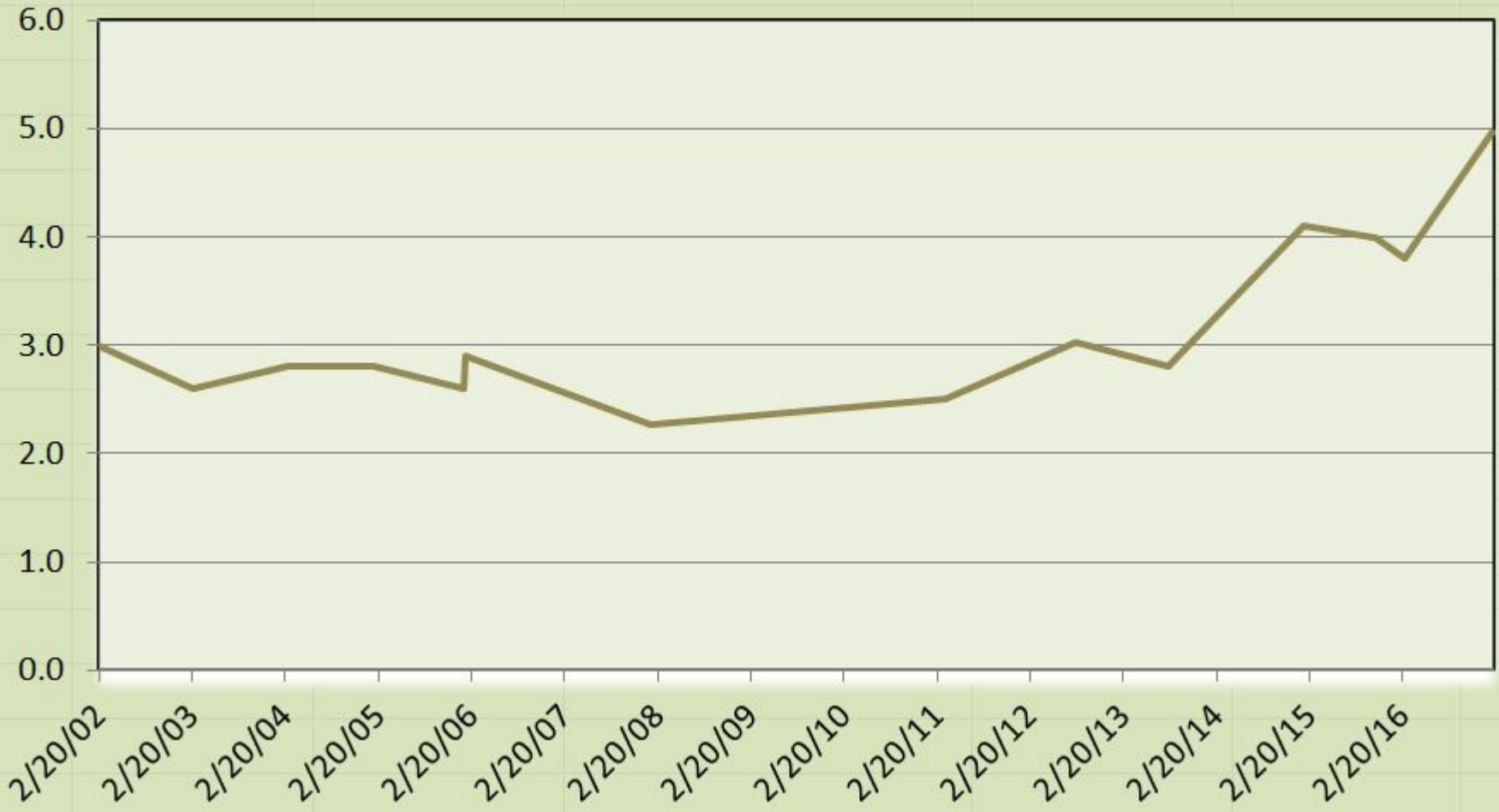
Our Soil Organic Matter is Trending (added-value)
We are growing vegetables and topsoil

Fair Share Farm
Soil Organic Matter (%)



SOM Increase Represents Carbon Sequestration (added-value)

Fair Share Farm
Soil Organic Matter (%)



FSF Carbon

From 2008 to 2017 Fair Share Farm generated an estimated **316,000 lbs of organic matter** over 5 acres (35,000 lb/year)

This equates to sequestering over **702,000 lb CO₂** in 9 years



Fair Share Farm Green Power Purchases

GREEN POWER CERTIFICATE

This certificate verifies that member

Thomas Ruggieri & Rebecca Graff

member name

has purchased 18,667 kilowatt-hours of green power from

Platte-Clay Electric Cooperative

electric cooperative

for a period of 12 months beginning in 01/2015. Consuming the green power represented by this

certificate has offset 32,275 pounds of carbon emissions. The green power was generated at

Bluegrass Ridge Wind Farm in northwest Missouri.

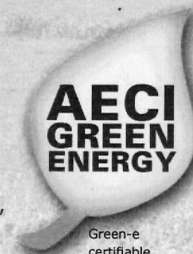
Jennifer Bond

electric cooperative representative

60156001-2015

serial number

All renewable attributes associated with the Renewable Energy Credits represented by this certificate, including any emissions, offsets or claims and all CO₂ benefits, were transferred to the electric cooperative member and permanently retired on his or her behalf.



Chemical Farming Approach

- ❖ So-called "conventional agriculture"
- ❖ Feed the plant synthetically produced, corrosive, soluble chemicals (dead matter)
- ❖ Essentially bypass the biology of the soil (no need for digestion)
- ❖ Similar to being fed only a liquid diet (feeding the infirmed)
- ❖ Synthetic feeding is unnatural. Unnatural is synonymous with *Artificial*.

Chemical Farming

Vegetables fed this artificial food are not "all natural"



Chemical Farming

Not comparable to organic

"Like comparing apples and
synthetic chemicals"



Fair Share Farm Ferments Key Factors and Benefits

- ❖ Fermenting processes are carried out at room temperature, minimizing energy requirements
- ❖ Storage of ferments requires refrigeration, which is already on-site to manage the storage of our vegetables
- ❖ 2015 was called "the year of the microbiome" by Fortune Magazine.

Fair Share Farm Ferments

Key Factors and Benefits

- ❖ By raising and processing our own vegetables we control quality, (over 95% of the ingredients produced on the farm)
- ❖ As the Kansas City areas first and only Farm-to-Ferment operation we have a unique story to tell
- ❖ The ability to add work activities to the farm operation that are less physically demanding than field work provides the farmers with alternative activities as we age.



Fair Share Farm Community Supported Agriculture

Share Farm the "Fair Share" members

- \$100 - 12 shares (12 weeks) \$100 - \$1000
- \$200 - 24 shares (24 weeks) \$200 - \$2000
- \$500 - 60 shares (60 weeks) \$500 - \$5000

Our Share Farm members

- Share Farm members can share in the benefits of the farm's produce.
- Share Farm members can share in the benefits of the farm's produce.

For more information, visit our website: www.fairsharefarm.com

Fresh KIMCHI

\$10/pint

Fair Share Farm vegetables are the main ingredient in these locally-produced, fermented products. Our spicy Kimchi is a vegan version of the traditional Korean staple.



TRY some
KIMCHI!



Kitchen Construction

















Fair Share Farm

Vegetable Processing

Hazard Analysis

Critical Control

Point Plan

October 2016

Our Recipe

- ❖ Step 1: Raising the crops
- ❖ Step 2: Preparing the ingredients
- ❖ Step 3: Fermentation
- ❖ Step 4: Enjoying



Step 2: Harvesting and Preparing







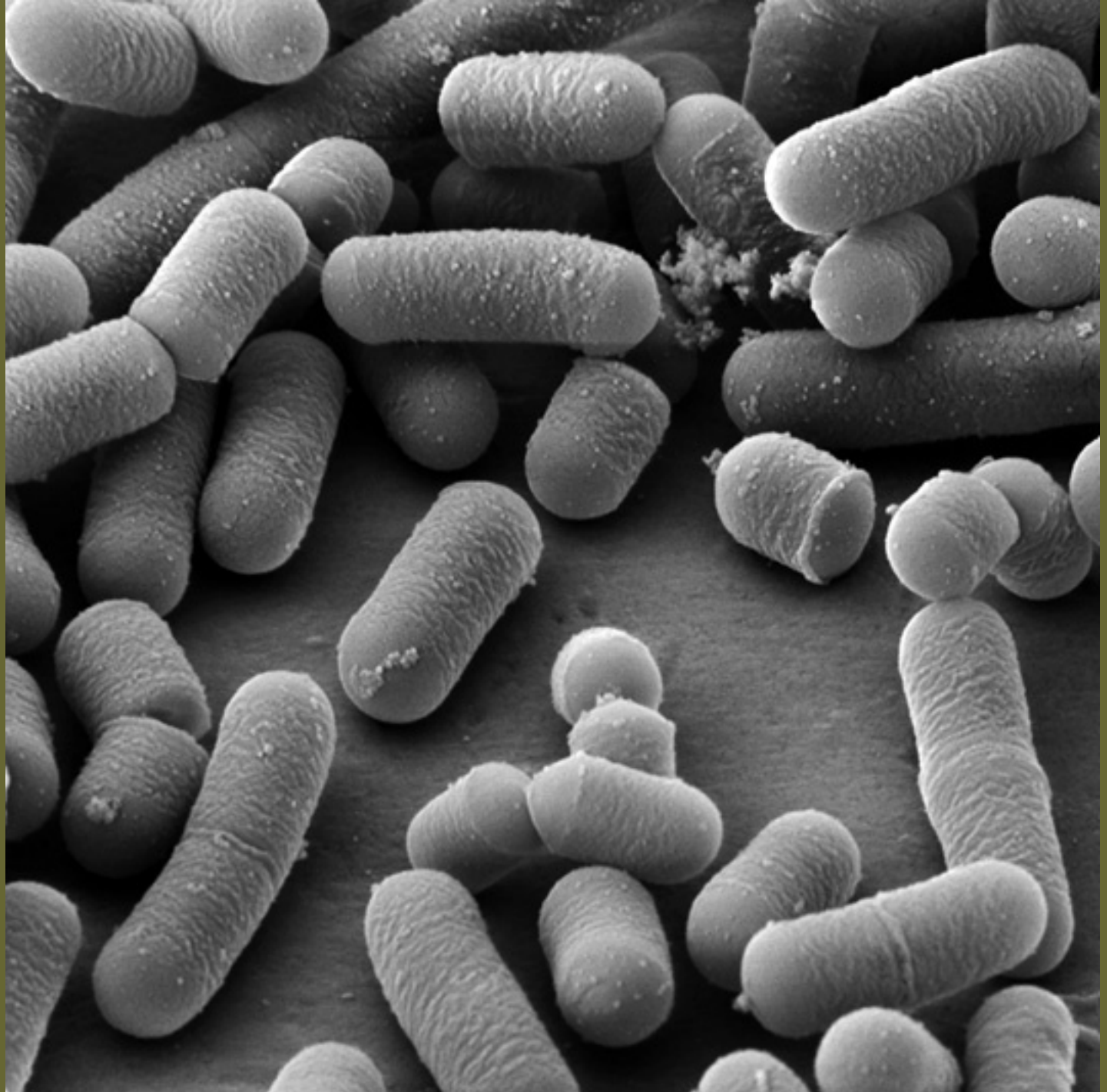






Step 3: Fermenting











Step 4: Enjoying







FAIR SHARE FARM
LIVE-CULTURE
ferments
Green Kim Chi
16 oz.



FAIR SHARE FARM
LIVE-CULTURE
ferments
Sauerkraut
16 fl. oz.



FAIR SHARE FARM
LIVE-CULTURE
ferments
Kimchi
16 fl. oz.



FAIR SHARE FARM
LIVE-CULTURE
ferments
Cucumber Pickles
16 fl. oz.



FAIR SHARE FARM
LIVE-CULTURE
ferments
Jalapeños en Escabeche
16 fl. oz.



\$9.99
13430 02530 3
\$9.99
13430 02529 7

FAIR SHARE FARM
LIVE-CULTURE
ferments

Farm to Ferment

At Fair Share Farm we raise the ingredients that go into our ferments. Our biological farming practices add carbon to our soil and flavor to our products.

www.fairsharefarm.com

Rebecca Graft and Tom Ruppert
Kearney, MO

\$9.99
13430 02532 1
\$9.99
13430 02532 7





Human Health Benefits

- ❖ Human microbiome is being studied and better understood
- ❖ We have a co-evolved symbiotic relationship with our gut microbes (probiotics). We grew up together and have a long-term relationship.
- ❖ Fiber in ferments represents prebiotics (food for our gut microbes that we cannot digest).

**Feed the Soil
Feed the People**



Bifidobacterium or fiber protect against deterioration of the inner colonic mucus layer

Date: January 2, 2018

Source: University of Gothenburg

Summary: If you are concerned about your health, you should also think about what your gut bacteria consume. Dietary fiber is a key source for their nutrition. Thus the quantity of fiber in your diet influences your weight, blood glucose level and sensitivity to insulin is well-established. The latest research shows that colonic health is also affected.

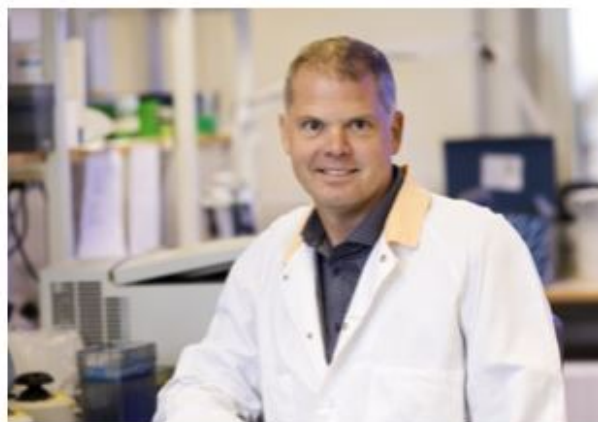
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RELATED TOPICS

Health & Medicine

- > Diet and Weight Loss
- > Nutrition
- > Gastrointestinal Problems
- > Vegetarian
- > Obesity
- > Cholesterol
- > Diabetes
- > Cystic Fibrosis

FULL STORY



This is professor Fredrik Bäckhed, Sahlgrenska Academy, Sweden.

Credit: Johan Wingborg, University of Gothenburg

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HEALTH & MEDICINE



Curcumin Improves Memory and Mood



Historical Migrations Left Genetic Footprints on the Irish Genome



The Creative Brain Is Wired Differently

Fair Share Farm				
Soil Organic Matter Summary 2002-2017				
Lab	Date	% Organic Matter	Range of Values	Number of Samples
MU	2/20/02	3.0	3.0	1
M	2/21/03	2.6	2.4 - 2.7	3
M	2/27/04	2.8	2.7 - 2.9	3
M	2/3/05	2.8	2.6 - 2.9	3
M	1/24/06	2.9	2.6 - 3.3	3
AL	1/20/06	2.6	2.2 - 3.1	4
AL	1/22/08	2.3	1.8 - 3.4	10
AL	3/23/11	2.5	2.0 - 2.9	10
MU	8/13/12	3.0	2.3 - 3.3	4
MU	8/12/13	2.8	2.5 - 3.1	2
AL	1/27/15	4.1	3.5 - 4.8	5
AL	11/3/15	4.0	3.4 - 4.9	4
AL	2/25/16	3.8	3.4 - 4.5	7
AL	2/13/17	5.0	4.3 - 7.3	6

Active Carbon (potential biological activity)



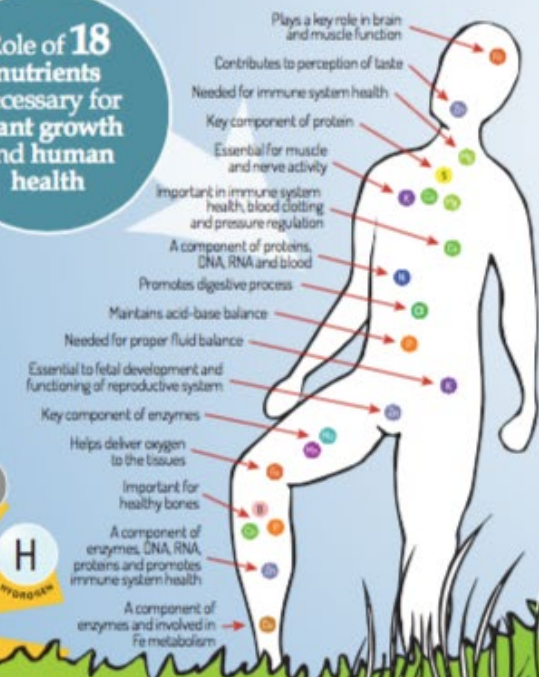
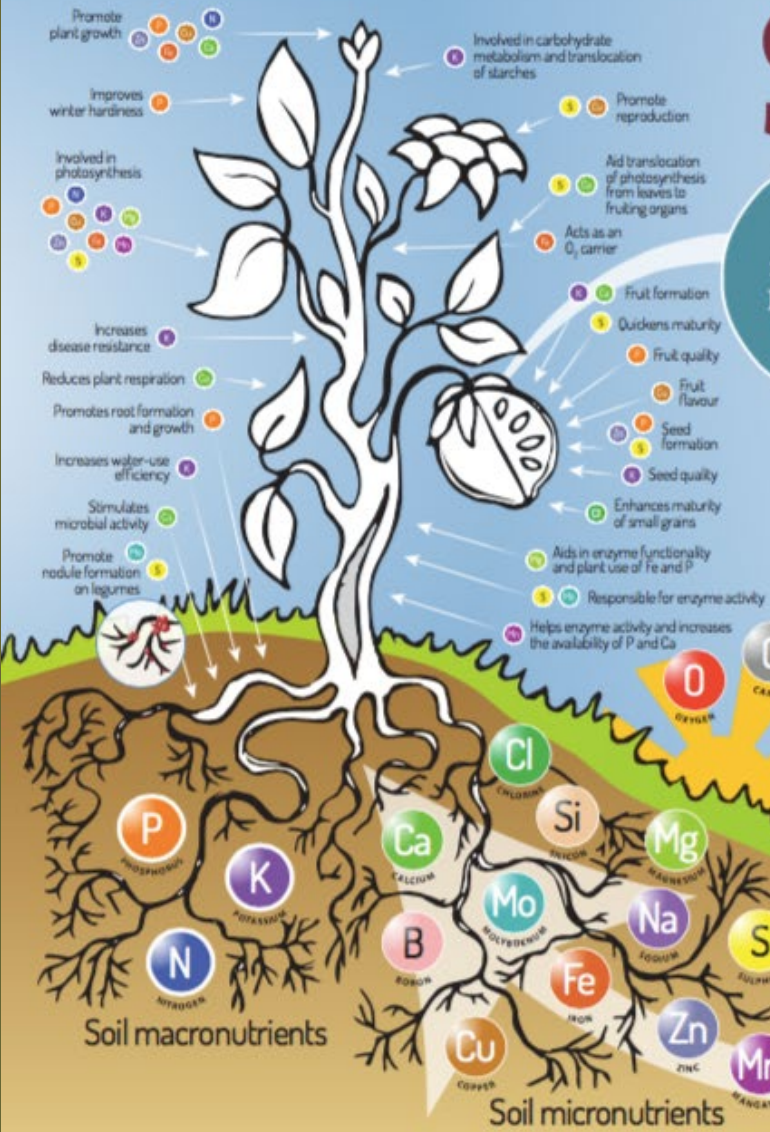
1 & 2 = Fair Share Farm 3 = Conventional No-till 4 = Forest 5 = Store bought topsoil
Analysis by Donna Brandt, MU Soil Health Assessment Center, Growing Growers Workshop, 2014

Fair Share Farm SOM Calculation

20,000	lbs/acre	weight of 1% organic matter in 6 inch depth of soil https://www.noble.org/news/publications/ag-news-and-views/2001/august/what-does-organic-matter-do-in-soil/			
8	inches	depth of FSF soil samples			
26,667	lbs/acre	FSF lbs/acre for 1% organic matter			
1.6	%	increase in organic matter 2008-2015/16			
42,700	lbs/acre	weight of organic matter added to FSF/acre			
5	acres	acreage in vegetable production at FSF			
213,300	lbs	Estimated weight of organic matter added to FSF 2008-2015			

Soil the foundation of nutrition

Role of 18 nutrients necessary for plant growth and human health



Soil degradation leads to the loss of soil micro and macronutrients

Nutrient-poor soils are unable to produce healthy food with all the necessary nutrients for a healthy person

Over 2 billion people suffer from micronutrient deficiencies

Increase soil organic matter content

Minimize tillage

Keep soil surface covered

Reduce erosion

Sustainable soil management for healthy soils, healthy food and healthy people

Ensure crop rotation

Healthy soils for a healthy life

Fair Share Farm SOM Calculation

3,500,000	lb soil/acre-ft	http://www.nwag.com/ir/page8.html
2,345,000	lb/8 inch depth, call it lb/acre	
2.3%	percent SOM 2008	
53,935	lb SOM/acre 2008	
5.00%	percent SOM 2017	
117,250	lb SOM/acre 2017	
63,315	lb SOM/acre increase 2008-2017	
7,035	SOM increase/acre/yr	
35,175	lb SOM/5 acres/yr	