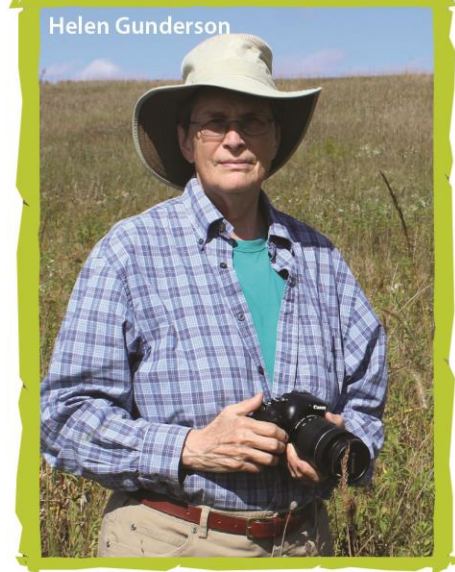


Josie Trople

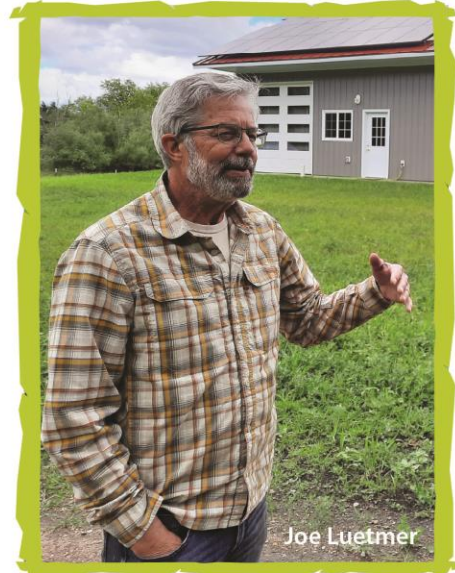


Wendy Johnson



Helen Gunderson

**CLIMATE
LAND
LEADERS™**



Joe Luetmer



Ann Novak



Carol Bouska

Climate Land Leaders

Own farm or forest land (some exceptions)

Set strong conservation goals and follow through

Learn from others in the cohort

Share publicly their commitment to climate and agriculture



Third Edition

FOSTERING SUSTAINABLE BEHAVIOR

An Introduction to Community-Based Social Marketing

Doug McKenzie-Mohr, Ph.D.



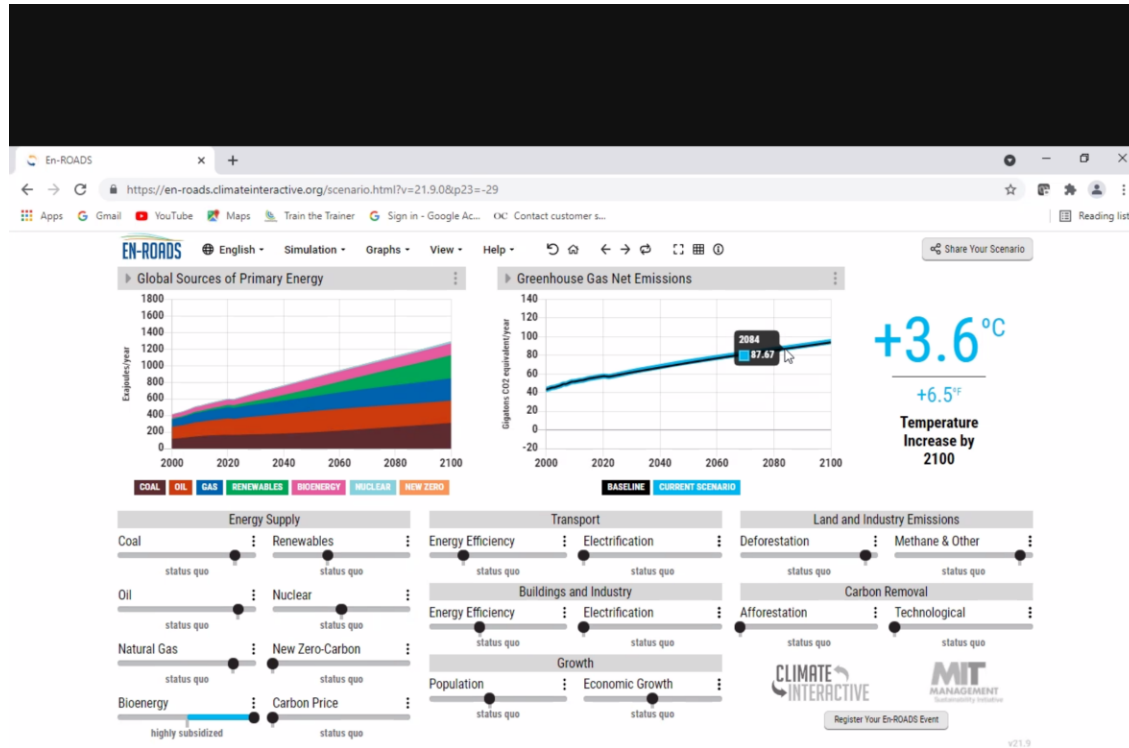
www.cbsm.com

Motivating people
for change

*Information alone
is not enough*



Our niche:
Developing
Leaders



Vision

Farmland owners, as stewards of the land, nourish the land and each other, and lead the transition to a healthy, habitable planet



Mission

Provide community and support to help farmland owners mitigate the climate crisis and enhance rural vitality



Guiding Principles

Respect and learn from the natural world through observation and engagement.

Use scientific evidence as a guide.

Utilize partnerships for greater impact.

Are accountable to and support each other.





Guiding Principles

Welcome people at various places in their journey to land transformation.

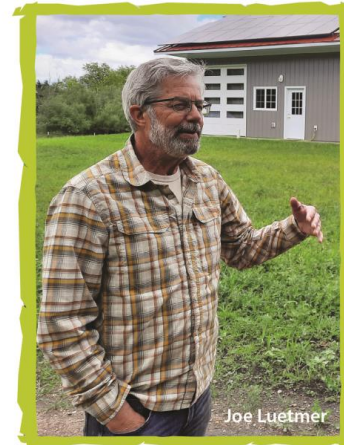
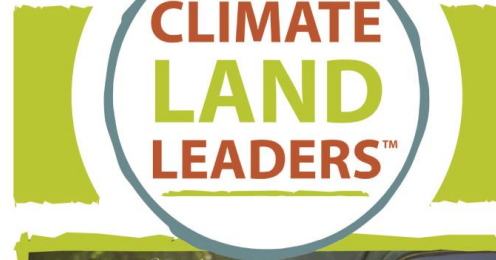
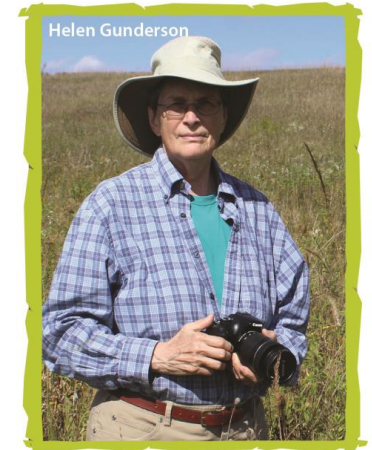
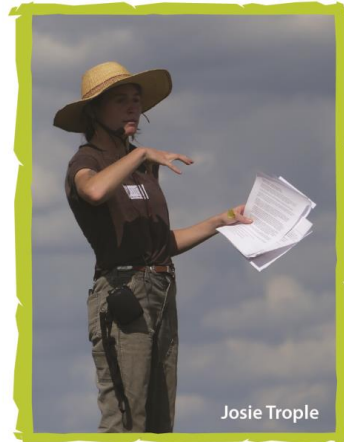
Focus on accomplishing work on-the-ground.

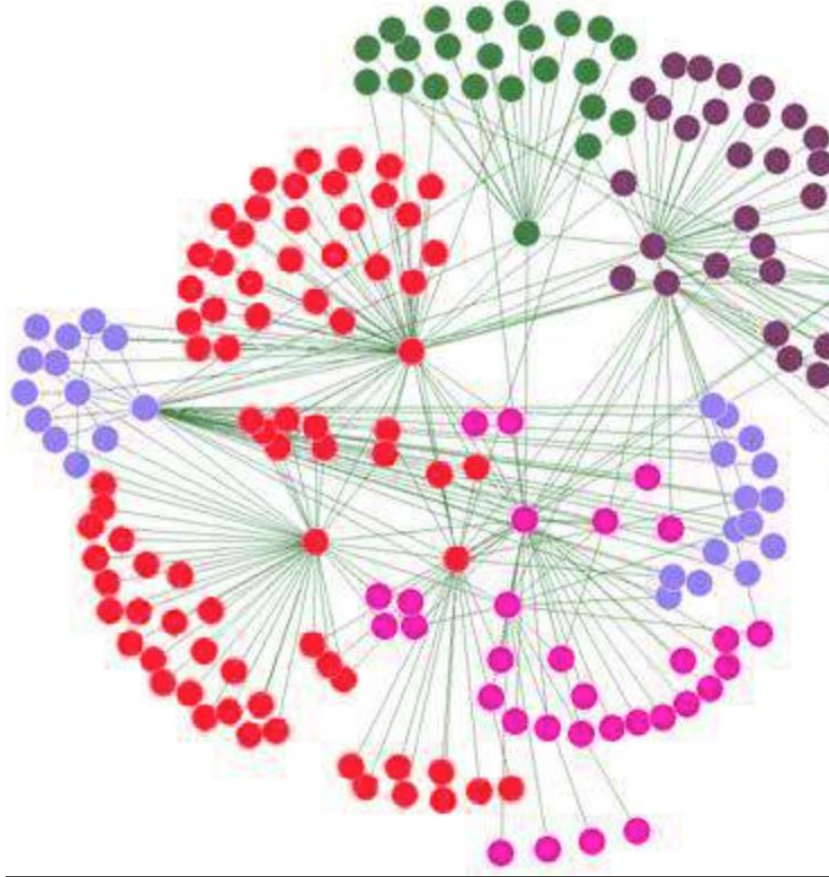
Acknowledge the negative effects of farming on soil health, water quality and the climate.

Recognize that working lands are necessary for growing food and supporting rural communities.

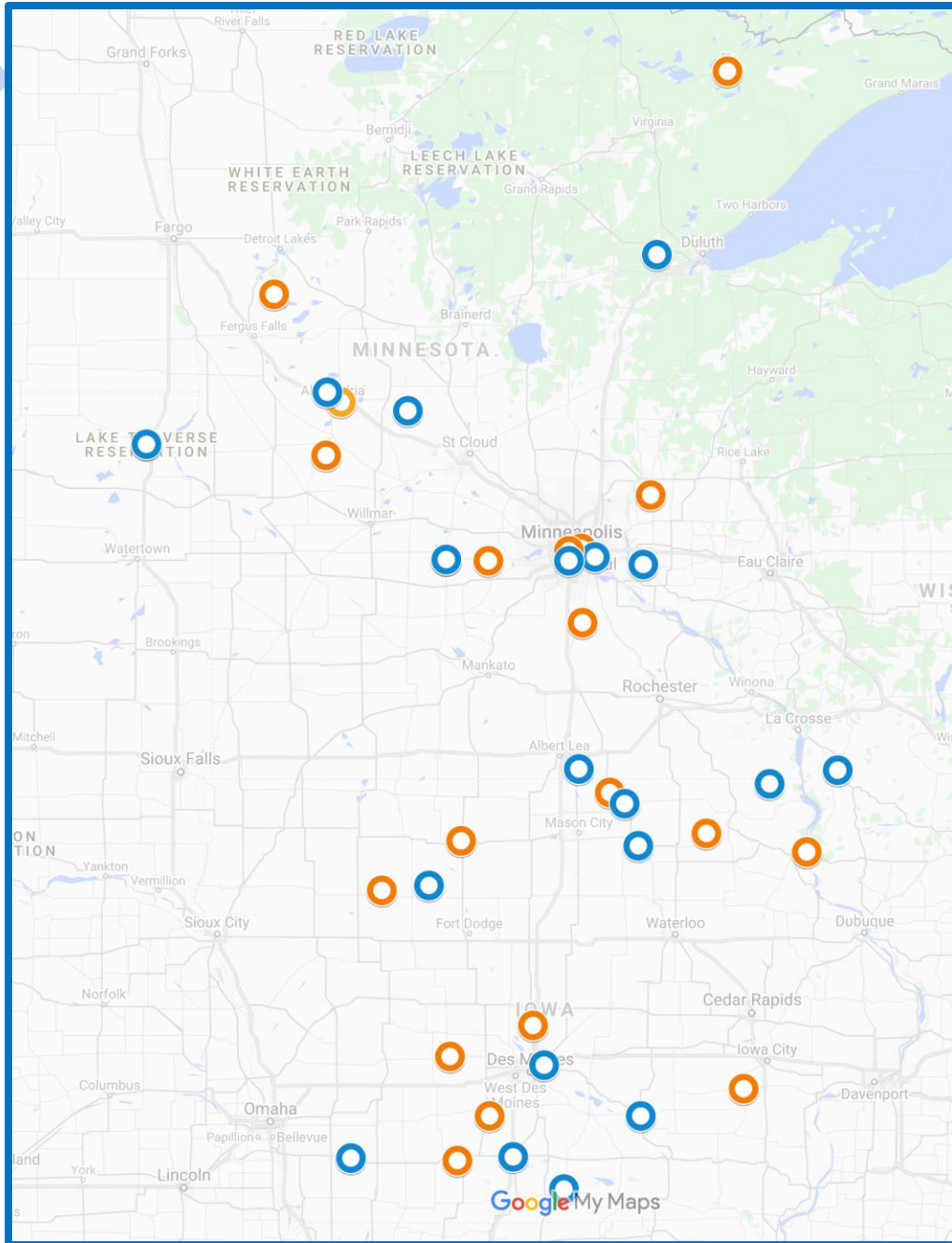
Climate Land Leaders

Outside sources of income
Networks beyond farming
Urban and rural
On the land and off





Dense Social Networks



10,500 acres
35 farms
37 participants



SOIL HEALTH is the basis



Observation, land walks

1.5 years in

- Monthly full cohort, side meetings on equity, hydrology and policy.
- Two farm visits in 2020, public event in 2021.
- 27 one-on-one calls with Dr. Sharon Weyers, USDA ARS.
- Soil testing protocol developed and used.
- Baseline soil samples to Cornell.
- Dr. Weyers conducting more intensive soil testing on 4 farms.
- Robust social media outreach in March 2021, with 2-3 posts weekly on Facebook and LinkedIn.



Shey 2021 Goals

- work with Ecological Design to develop a plan for zones 1 and 2 of the home place: *design in process.*
- develop a more comprehensive farm plan working with tenants that includes transition to cover crops and no-till: *have not started, one new tenant with some cover crops*
- plant pollinator habitat on 2 25-acre CRP tracts: *brome did not die and had to respray and will replant in the future*
- fall planting implementing some of Ecological Design's recommendations: *working to enroll 4 acres in NRCS windbreak program*
- land walk on 2 fields and 2 CRP tracts: *not completed*



Bouska 2021 Goals

- Plant 4,500 trees and shrubs on nine acres
- Plant prairie strips around borders of both farms (37 acres)
- Restore wetland (3 acres, total area in wetland is 6 acres)
- Plant cover crops on entire cropped acreage (350-plus acres)



Policy Subgroup

Nexus of working lands and conservation

Appropriations
Farm Bill
USDA climate strategy
Carbon markets
Against pipelines



“If the taxpayers’ money is going to support agriculture, it should support those who provide ecosystem services.”

--Wendy Johnson, writing in the Des Moines Register



Equity: Who owns the land and who doesn't. Why?

From Strategic Plan:

We acknowledge and oppose systemic inequalities that limit access to land.



Art to Inspire, Soothe



Some Partners

Agricultural Research Service

National Campaign for Sustainable Agriculture

Ecological Design

Morgan Family Foundation

Sustainable Farming Association of MN

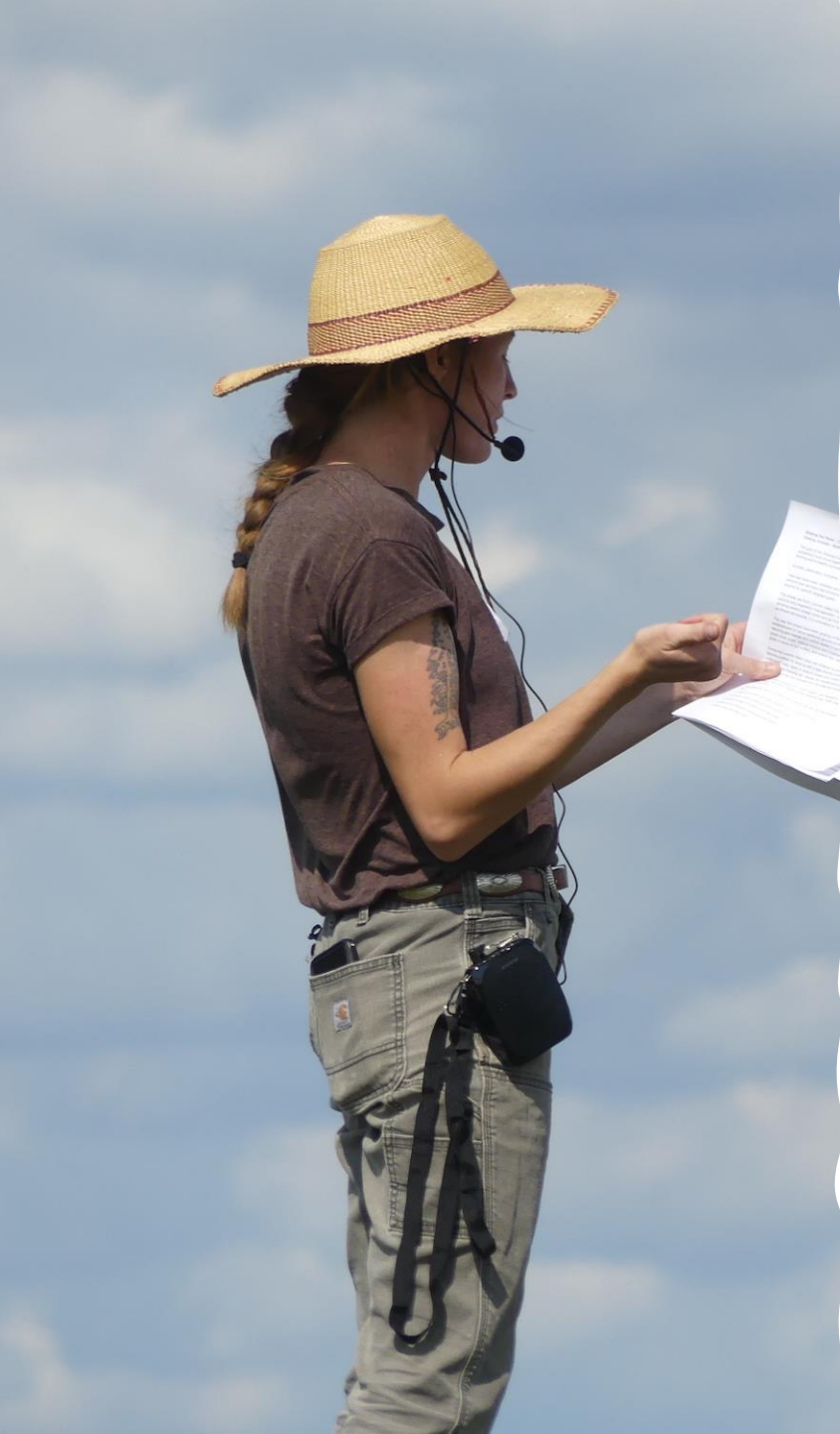
Climate Bridge Strategies

Cultivating Resilience

U.S. Fish and Wildlife Service

NRCS

MN Department of Ag



Helping the Climate Crisis?

Sound bites from Sharing Our Roots

A **plant-rich diet** is a top solution for addressing climate change. Climate change is disproportionately affecting communities of color and is a **major contributor to our worldwide refugee crisis and migration patterns.**

Perennial agriculture reduces greenhouse gas emissions and draws down carbon. Markets for selling perennial products are underdeveloped; need consumer commitment.

Grazing animals, with their manure and hoof action, increase life in the soil and may result in a net greenhouse gas reduction.

Sharing Our Roots Farm is **restoring wetlands and the water's natural flow and keeping buffers along waterways.** This restoration draws down carbon, restores water quality and increases biodiversity. Robust financial support for ecosystem services is essential.

Sharing Our Roots is restoring soils degraded through conventional row cropping. The goal is to build carbon, organic matter and biological activity in the soil. **Healthy soils draw down carbon and hold rainfall where it falls.**

Helping the Climate Crisis? On-farm examples

Bouska: 2021 changes to no-till,
conventional cropped land:

Nine acres of trees and shrubs + 37 acres
of prairie + 350 acres of cover crops

COMET-Planner: 134 metric tons Co₂
equivalent per yr. for 20 yrs.

= 337,000 miles driven per yr. for 20 yrs.



Carbon drawdown potential?

Comprehensive Assessment of Soil Health

From the Cornell Soil Health Laboratory, Department of Soil and Crop Sciences, School of Integrative Plant Science, Cornell University, Ithaca, NY 14853. <http://soilhealth.cals.cornell.edu>



Grower:
Carol Bouska Highland Farm
8515 Colfax Ave
Minneapolis, MN 55408
carolbouska@gmail.com
jtrolep@mainstreetproject.org

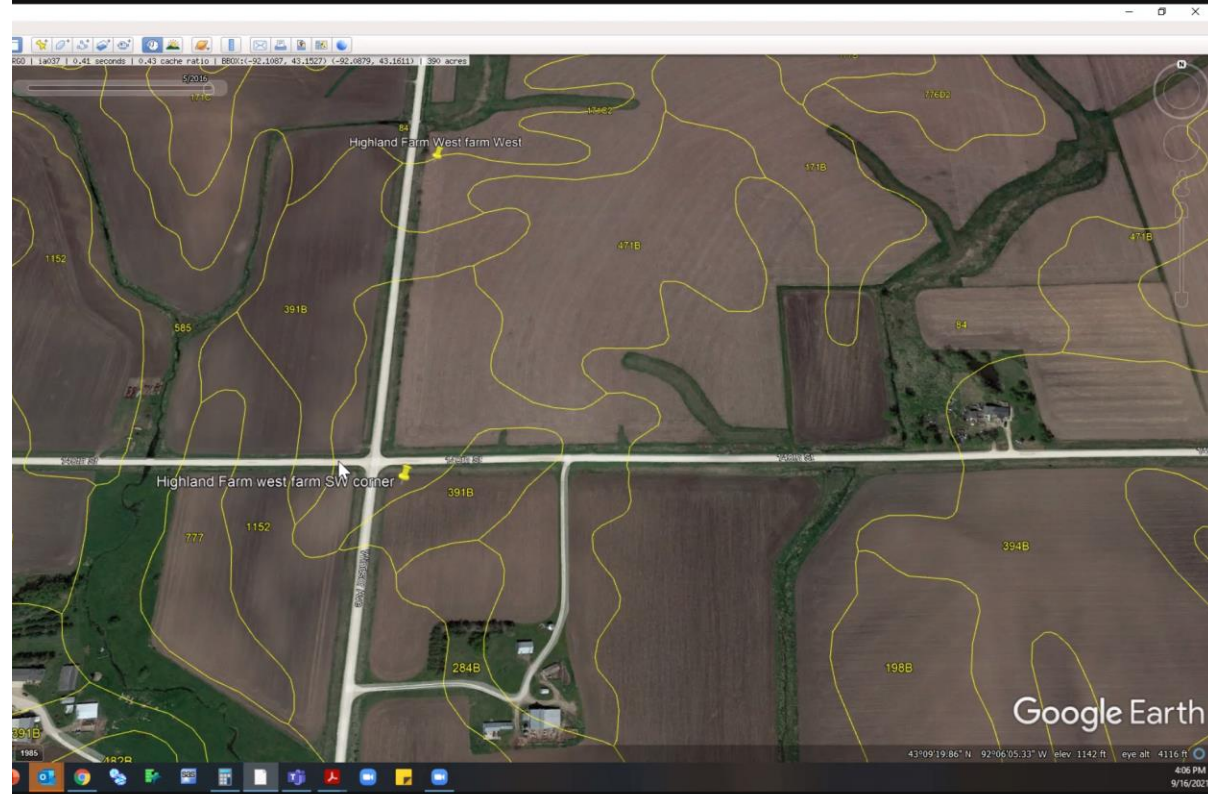
Sample ID: UJ660
Field ID: Home Farm East Field North of Surrice Rd
Date Sampled: 10/10/2020
Given Soil Type: Clyde Silt Loam
Crops Grown: COG/SOY/COG
Tillage: no till
Coordinates: Latitude: 43.146339030000
Longitude: -92.052403390000

Measured Soil Textural Class: **loam**
Sand: **48%** - Silt: **39%** - Clay: **12%**

Group	Indicator	Value	Rating	Constraints
physical	Predicted Available Water Capacity	0.21	75	
physical	Surface Hardness			Not rated: No Field Penetrometer Readings Submitted
physical	Subsurface Hardness			Not rated: No Field Penetrometer Readings Submitted
physical	Aggregate Stability	38.2	65	
biological	Organic Matter Total Carbon: 3.44 / Total Nitrogen: 0.28	4.3	92	
biological	Predicted Soil Protein	10.40	88	
biological	Soil Respiration	0.5	37	
biological	Active Carbon	575	65	
chemical	Soil pH	6.6	100	
chemical	Extractable Phosphorus	3.5	100	
chemical	Extractable Potassium	199.3	100	
chemical	Minor Elements Mg: 372.4 / Fe: 1.1 / Mn: 3.9 / Zn: 0.8		100	

Overall Quality Score: **82 / Very High**

Recording...





Double acreage/participants
in 2022

Help achieving on-farm goals

Increased confidence and
knowledge needed to lead on
ag and climate change

Strengthened community

Challenges

Too much information

An Initiative of...

Staying focused on landowners as leaders

Climate depression and anxiety

Thank you!

[Sharing-our-roots.org/Initiatives](https://sharing-our-roots.org/Initiatives)

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