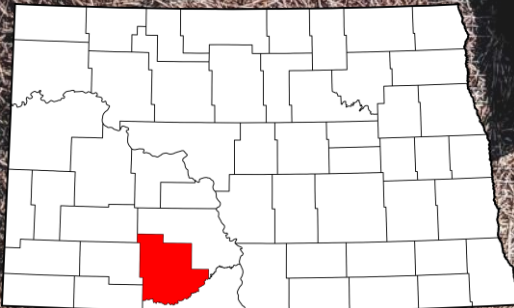
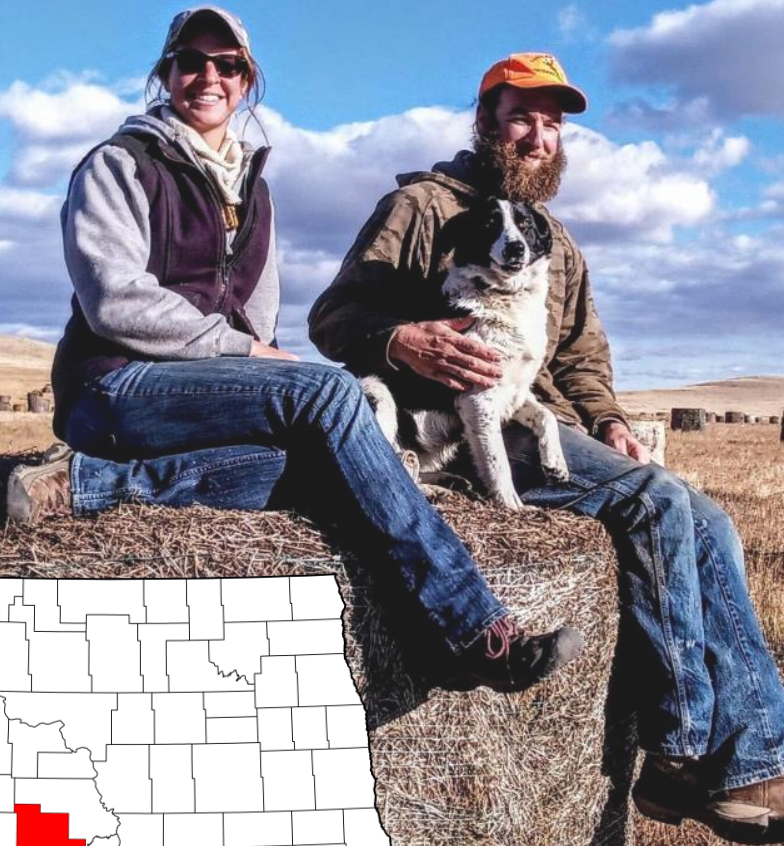


# Bale Grazing to Build Soil Health

Erin & Drew Gaugler, FNC18-1123

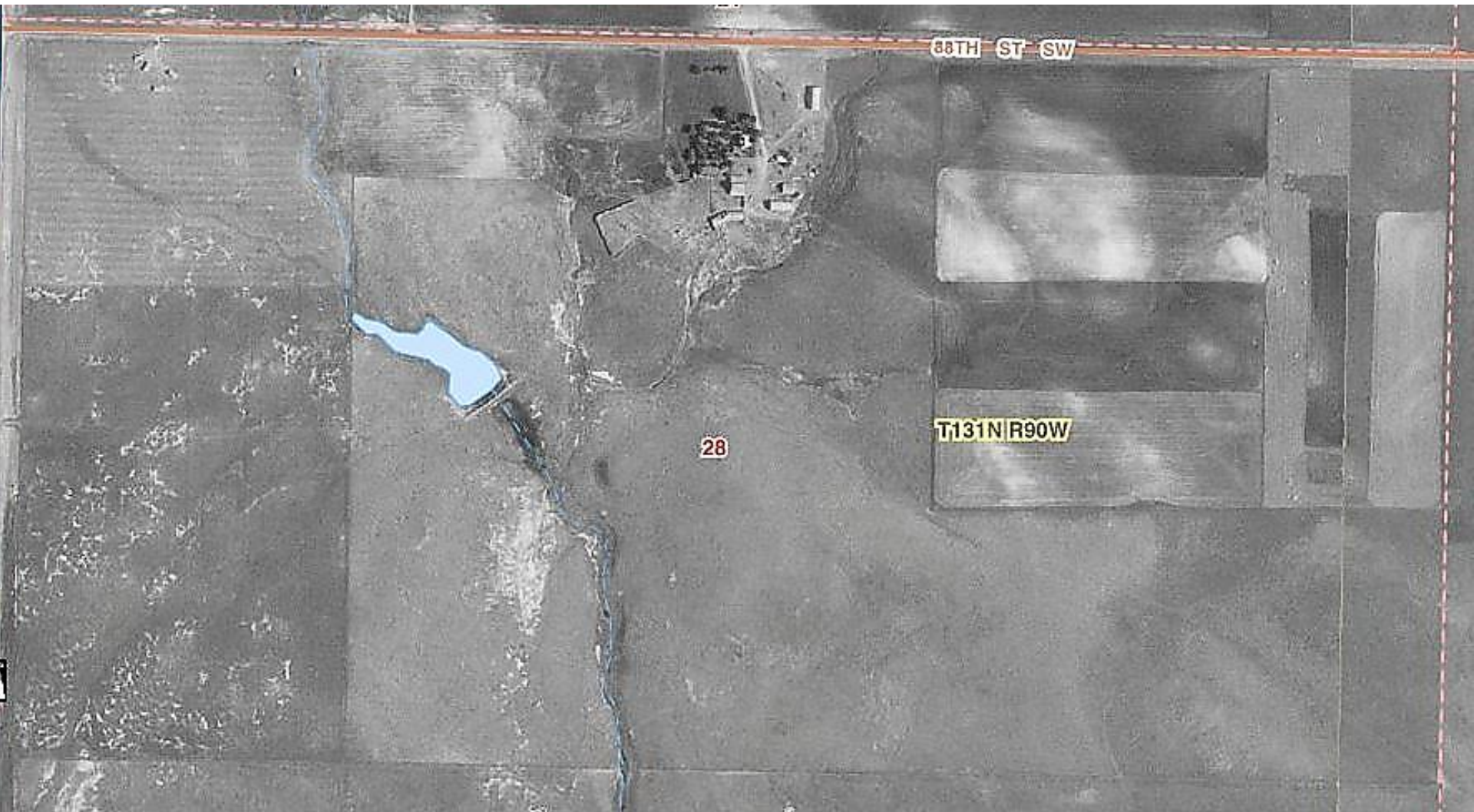


Farmers Forum, 2021  
*Advancing sustainable  
agriculture since 1988!*

# 1957



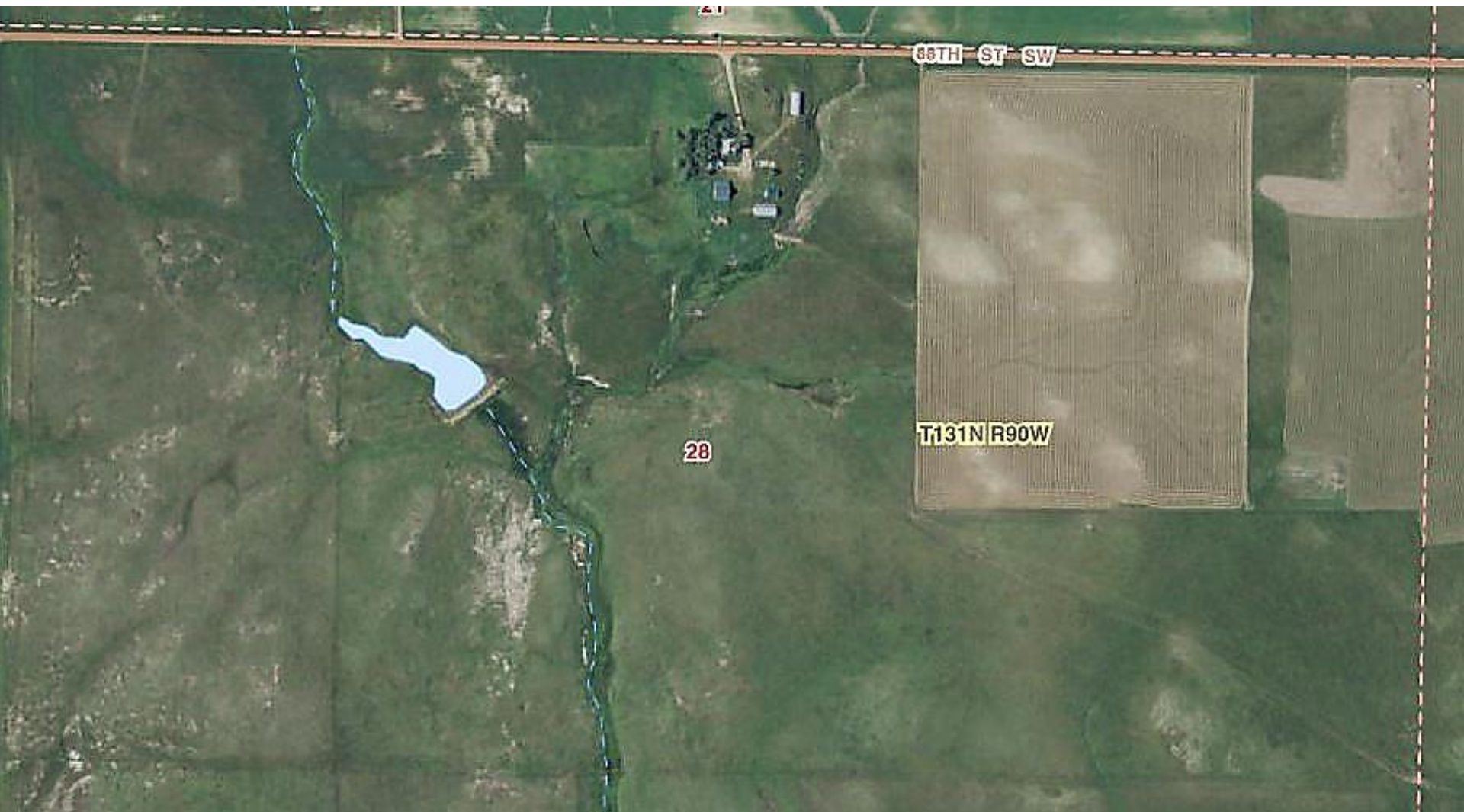
1995



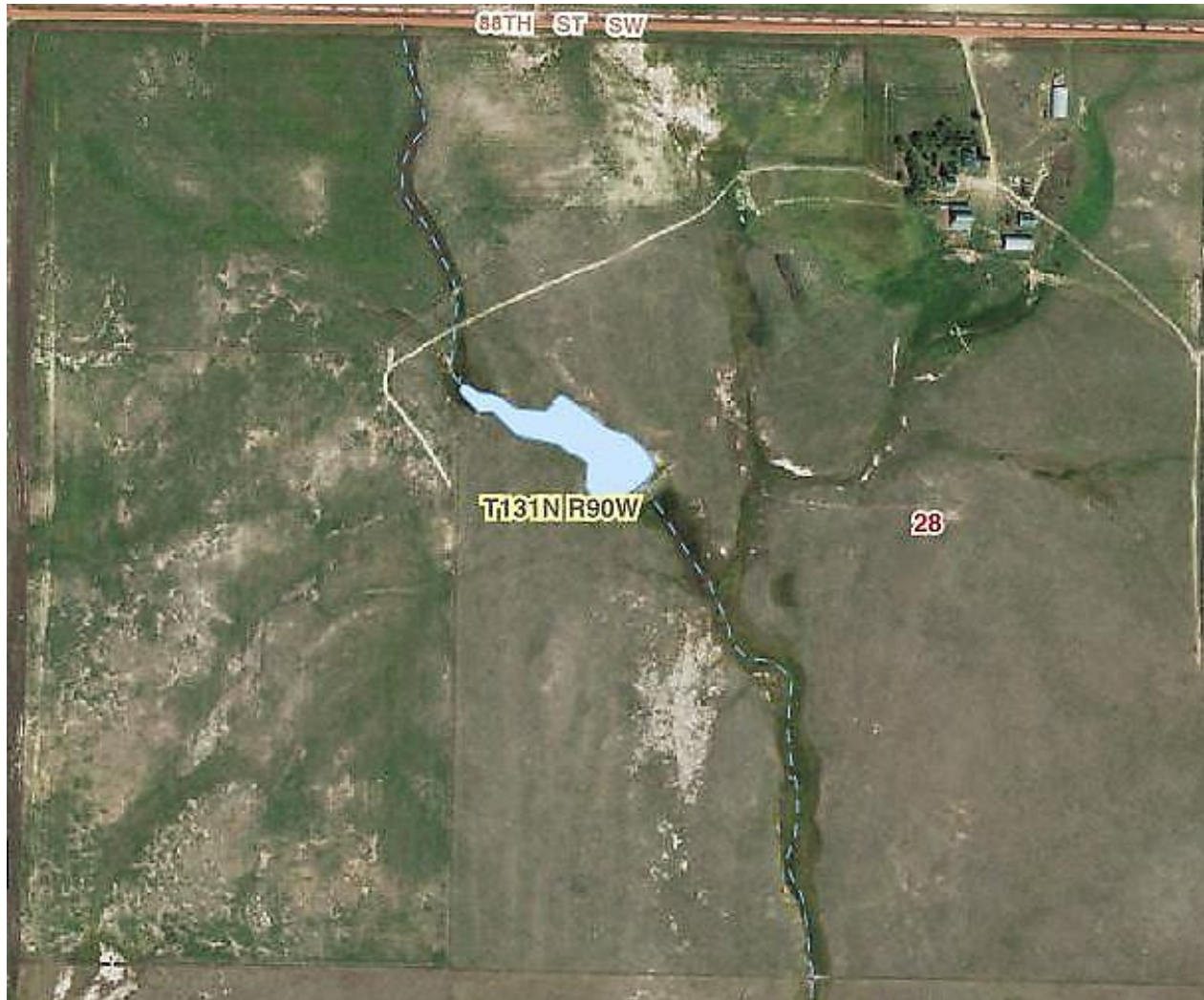
2004



2010

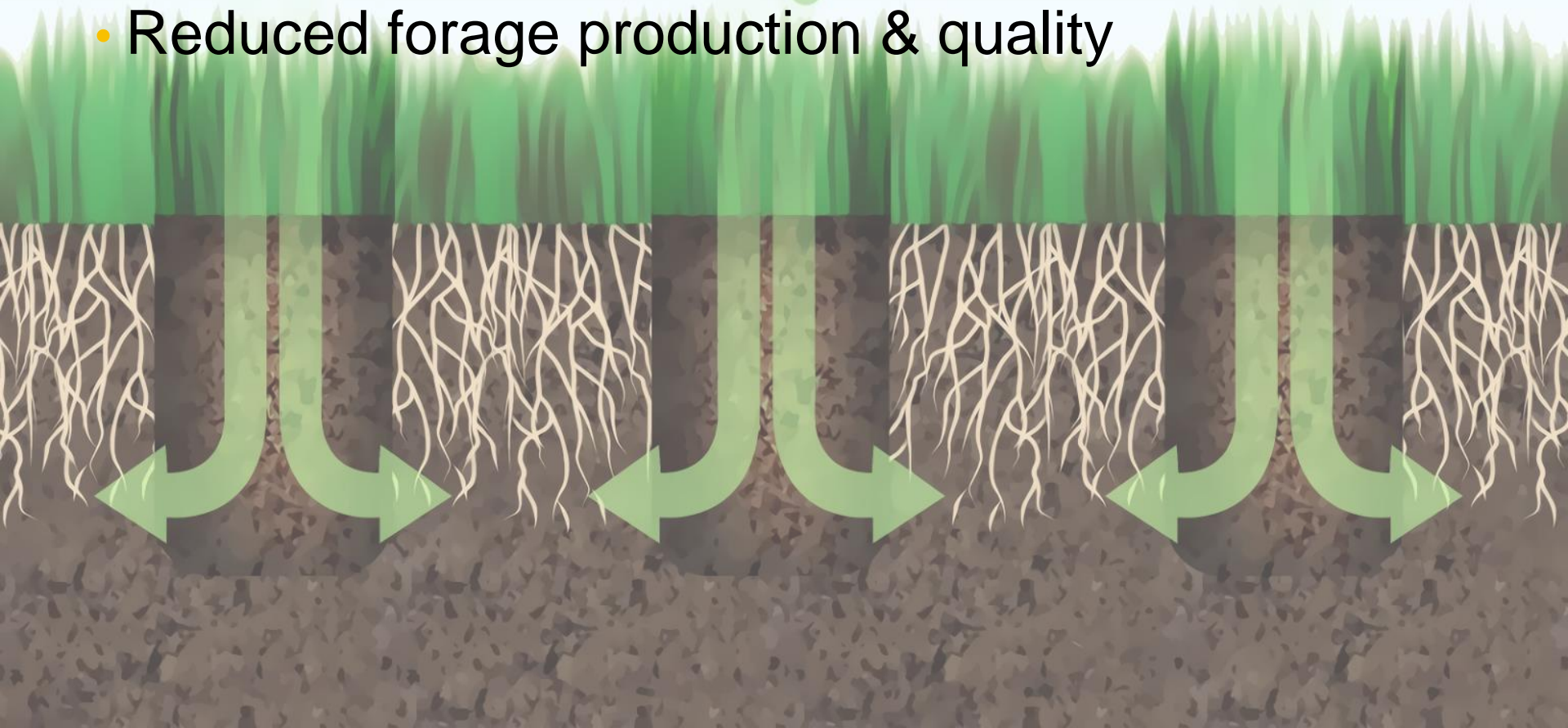


# 2017 (project area)



# Resource Concerns

- Soil loss
- Water management
- Reduced forage production & quality





Example(s):

- Loss of top soil
- Soil compaction & trailing





Example:

- Surface runoff



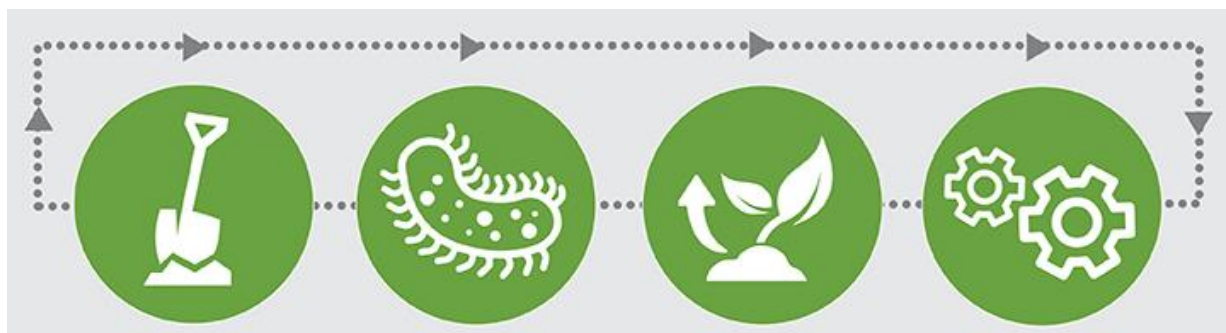
Example:

- Clay pans



# Project Objectives

- Improve soil health & fertility
- Increase nutrient cycling & reduce nutrient runoff
- Improve forage production & quality
- Extend grazing season
- Reduce feed & labor costs
- Share findings



# Bale Grazing & Management



# Timeline

2018

Tree prep

Spring cover  
crop planting

Installation of  
permanent  
fence

Hay hauled  
to site

Bale grazed



2019

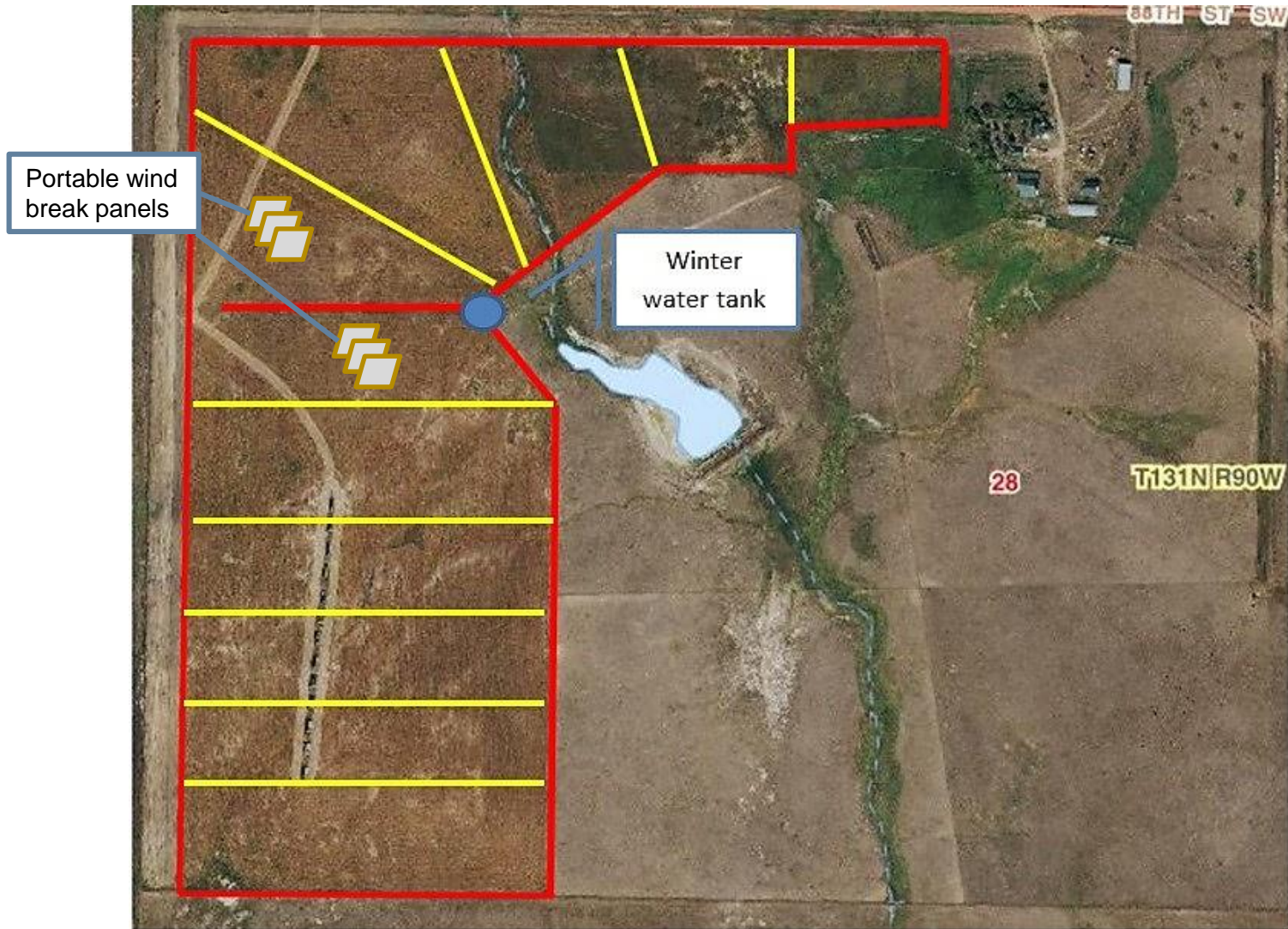
Perennial  
Planting

Tree Planting

Hay hauled to &  
harvested on-site

Bale grazed

# Fencing







# Bale Grazing

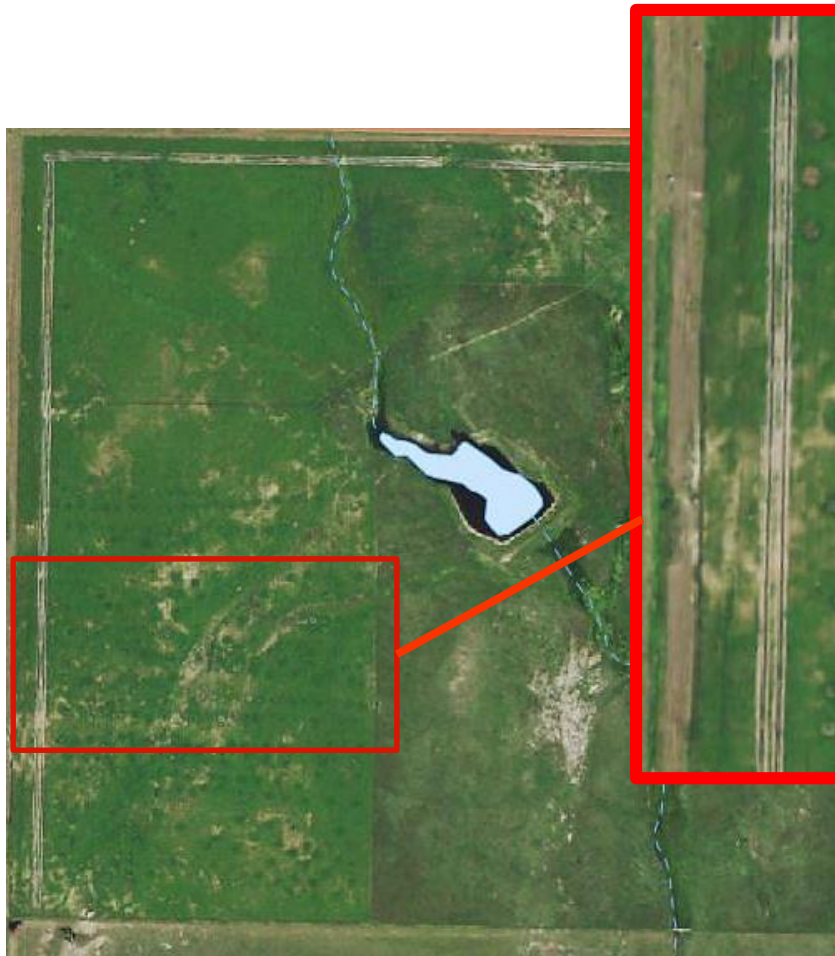




# Soil Nutrient Response

<b>0-6"</b>	<b>Cover Crop Only</b>	<b>Bale Graze &amp; Cover Crop (Direct Impact)</b>	<b>Bale Graze &amp; Cover Crop (Indirect Impact)</b>
pH	7.6	6.7	6.2
<b>NO3-N (lb/ac)</b>	<b>4</b>	<b>74</b>	<b>4</b>
OM (%)	2.9	2.9	2.9
<b>P (ppm)</b>	<b>4</b>	<b>13</b>	<b>4</b>
<b>K (ppm)</b>	<b>201</b>	<b>790</b>	<b>280</b>
Soluble Salts (mmhos/cm)	0.27	0.36	0.13
Zn (ppm)	0.5	1.8	0.8
Mn (ppm)	25.3	67.2	19.4
Cu (ppm)	0.4	1.0	0.5
SO4-S (lb/ac)	8	26	3
Cl (lb/ac)	10.4	18.3	14.3

# Forage Response



# Multi-Species Bale Grazing to Build Soil Health

Erin & Drew Gaugler, FNC20-1218



# Timeline

2020

Fence  
modification

Hay hauled to  
& harvested  
on-site

Purchase &  
train sheep

Soil sample

Bale graze



2021

Fence  
modification

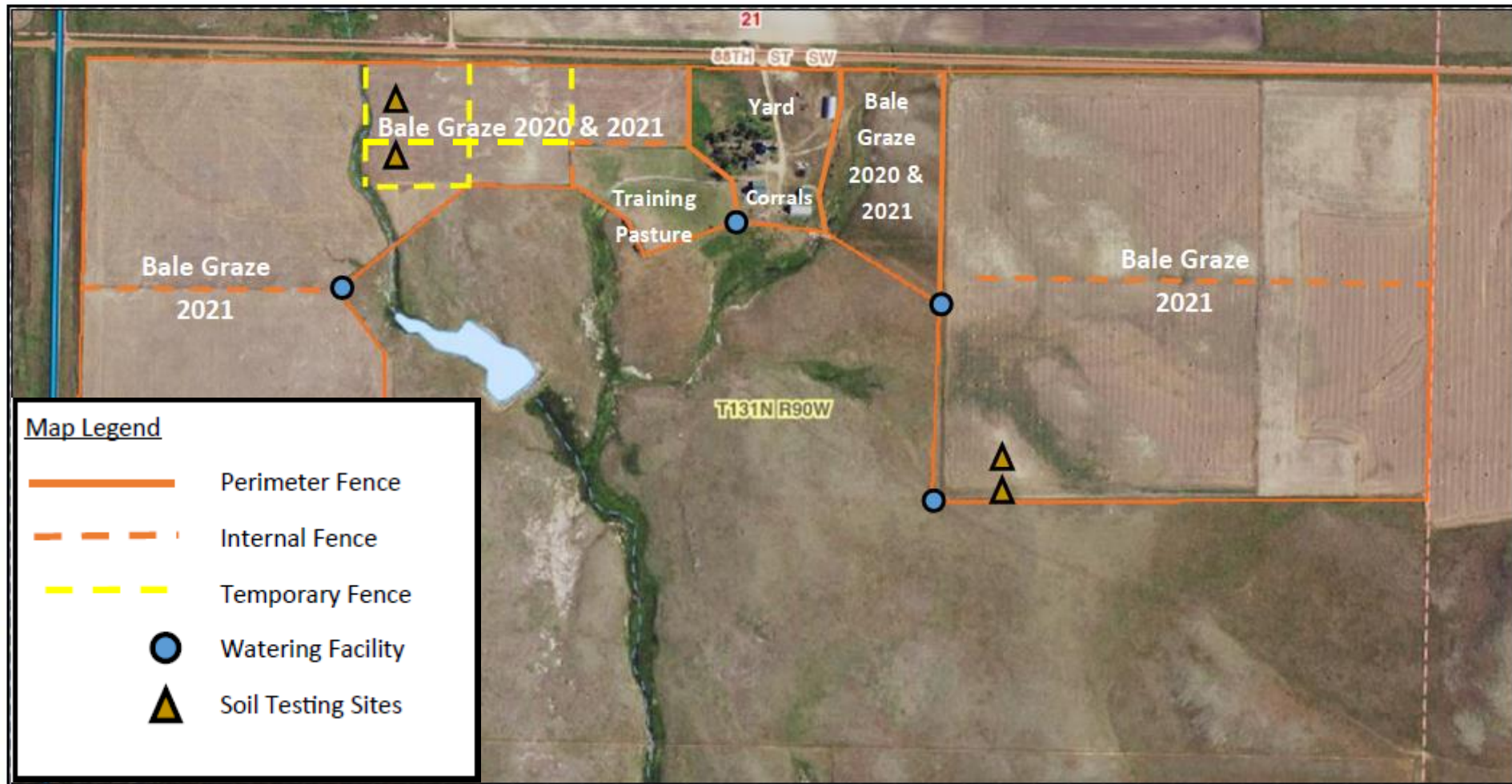
Hay hauled to  
& harvested  
on-site

Purchase &  
train sheep

Bale graze

Soil sample

# Fencing



# Outreach Efforts

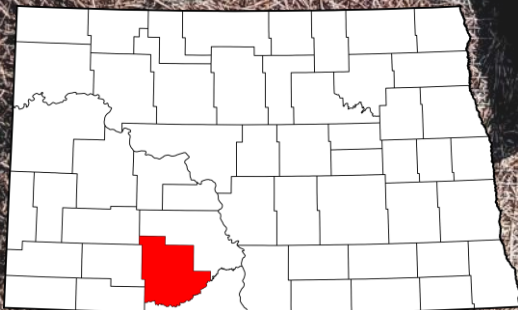


- Focus: traditional & non-traditional producers
- On-farm demonstrations
- Mail-box tours
- Podcasts, articles and more



# Questions?

Erin & Drew Gaugler, FNC18-1123; FNC20-1218



Farmers Forum, 2021  
*Advancing sustainable  
agriculture since 1988!*