

# Carbon Sequestration in Soils – Pilot Project

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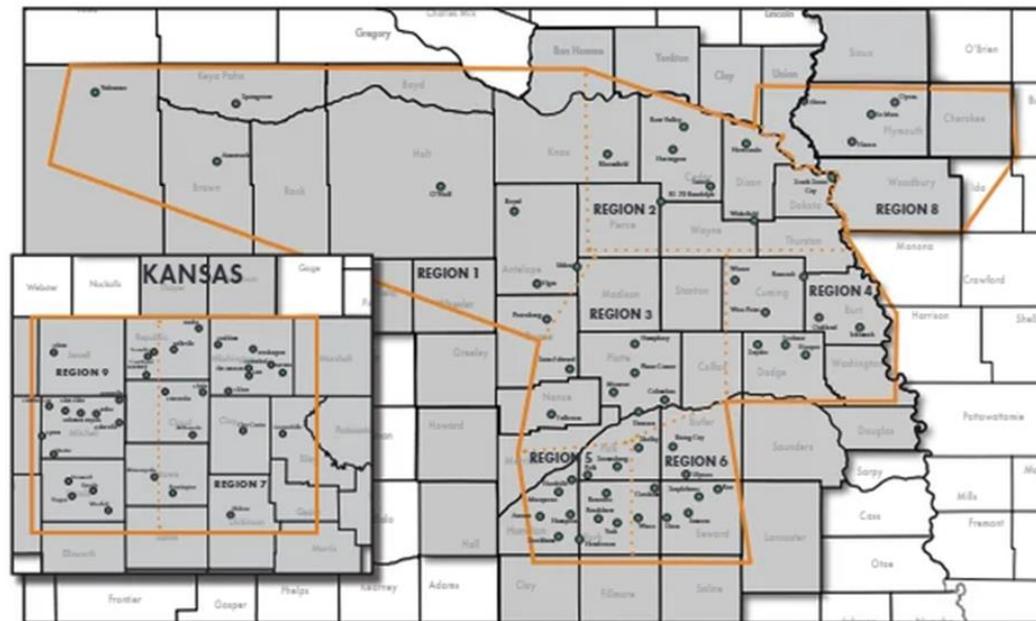
**Nebraska Public Power District**

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# Central Valley Ag (CVA) – Background

- **Producer-owned cooperative**

- 22-member Board of Directors
- York, Nebraska, headquarters
- Locations in Nebraska, Iowa, and Kansas
- 10,700 member-owners
- 15-million tillable acres
- Agronomy, energy, feed, grain
- Conservation agronomist



FOR A COMPLETE LIST OF CVA LOCATIONS AND CONTACT INFORMATION, VISIT [WWW.CVACOOP.COM](http://WWW.CVACOOP.COM).

# ≡ CVA Pilot

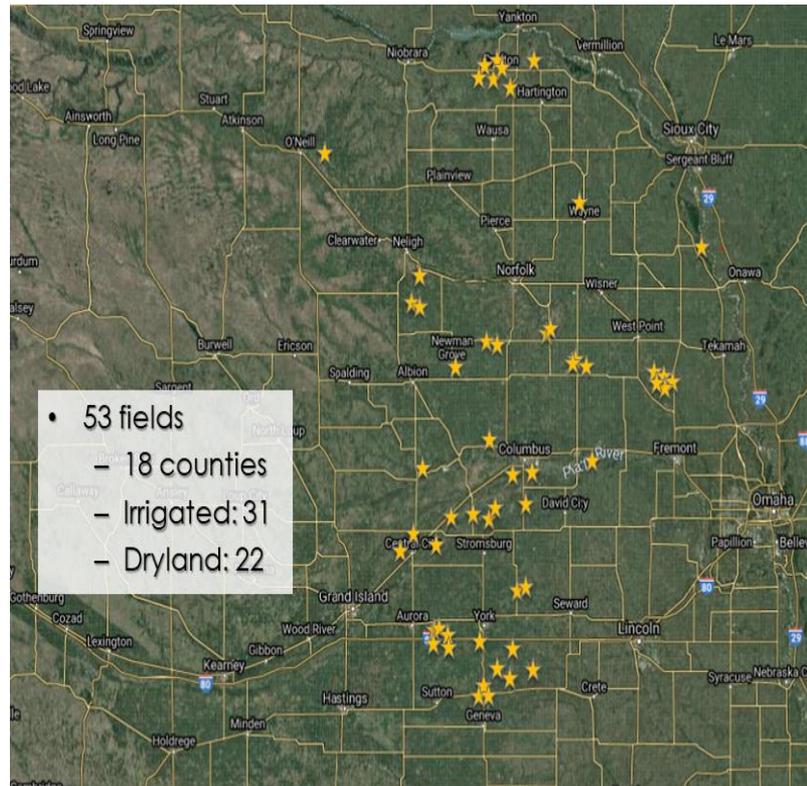
- **Central Valley Ag Cooperative (CVA) approached NPPD with a possible carbon sequestration in soils opportunity**
  - Carbon sequestration is the process of converting atmospheric carbon to a stable form of carbon in the soil
  - Photosynthesis fixes atmospheric carbon in the soil
  - Tillage practices and cover crops impact amount of carbon in soil
    - No-till, minimum till, strip-till
  - The concept is that small increases of soil carbon over very large areas in agricultural lands will significantly reduce atmospheric carbon dioxide

# CVA Pilot

- **CVA program will:**
  - Utilize a combination of field measurements and scientific modeling to quantify and validate greenhouse gas (GHG) credit production at field level
  - Soil sampling at start of program and annually
  - Changes will be tracked, and information used in model verification / validation
  - Greater carbon sequestration on irrigated vs. dryland soils

# CVA Pilot

- **Year 1-2 : Pilot program over 4,956 acres in eastern NE**
  - Wide range of fields to demonstrate variations in carbon credit potential
  - Estimating 0.75 – 1.25 tons CO<sub>2</sub>e / acre dryland
  - Estimating 1.25 – 2.5 tons CO<sub>2</sub>e / acre irrigated



# Why Participate in the Pilot?

- Part of NPPD's "all of the above" approach to managing CO<sub>2</sub>
  - Looking for right mix of technologies and processes
  - Those that have a minimum impact on our rates and leverage advantages for other Nebraskans
- Objective is to neutralize carbon footprint by "offsetting" carbon emissions
  - Selling carbon credits to a carbon reduction market (Google, Facebook, etc.)
- Many working to establish a method / process for offset validation
  - Potential legislation
- NPPD goal:
  - Interested in making the credits fungible
  - Carbon credit accounting system

# Current Status

- Cover crop sampling
  - Variability between seeding rates, growth stage, and soil types



# Current Status

- Baseline soil samples
  - One sample/40 acres
  - Site georeferenced
  - 3" diameter core to 12" depth



## ≡ Next steps

- Continued data acquisition
- Planting of cover crops
- Soil sampling
- Further identification of protocols and/or programs for potential generation of registered carbon credits

# Questions?

Stay connected with us.



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