

# Nebraska Extension: Your partner in education

Crystal A. Powers  
Program Area Leader  
Statewide Water Educator



**Nebraska  
Water Center**  
Daugherty Water for Food Global Institute



THE DAUGHERTY  
**WATER for FOOD**  
GLOBAL INSTITUTE  
*at the University of Nebraska*

# Nebraska Extension translates science to co-create a better tomorrow with Nebraskans



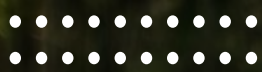
**Strengthen Nebraska  
Agriculture & Food Systems**



**Inspire Nebraskans &  
Their Communities**



**Enhance The Health &  
Wellbeing Of All Nebraskans**



# Current Extension water programs



# Connecting Nebraskans

Development



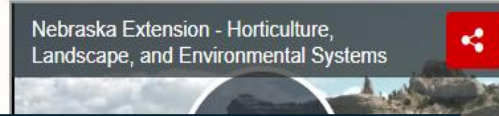
Youth 6-18

Systems Program



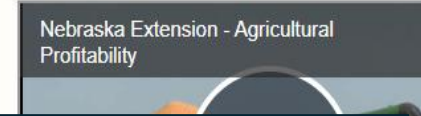
Ranchers

Landscaping



Residential

Profitability



Farmers & Ranchers

Food, Nutrition  
and Health



Public

Early Childhood  
Program



Daycares

Rural Prosperity  
Nebraska



Rural Communities

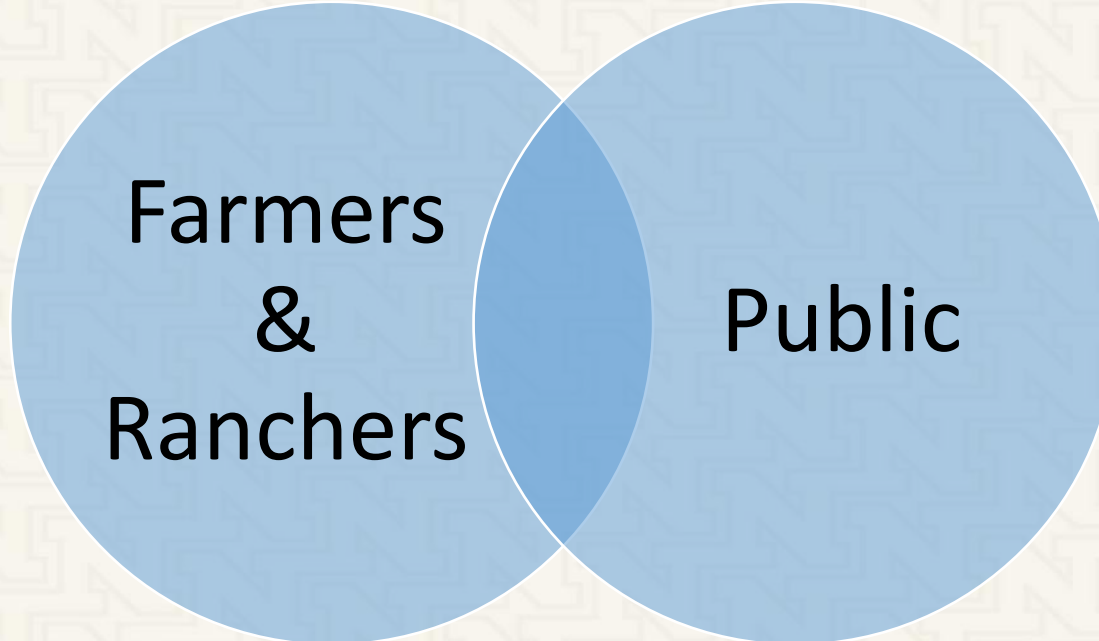
Water and  
Cropping Systems



Farmers



# Extension Topics



Nitrogen

Irrigation

Soil health & other conservation

Manure

Land management

Economics

Health (WCS/FNH)

Water testing & treatment  
(HLES/WCS)

Lawn care (HLES)

# Water Education

*“All Nebraskans have a role to ensure a future with abundant, safe water.”*

2020 Nebraska Nitrate Working Group

## Water for Tomorrow

- Farms
- Homes

## Safe Drinking Water Today

All Nebraskans:

- Communities
- Private wells





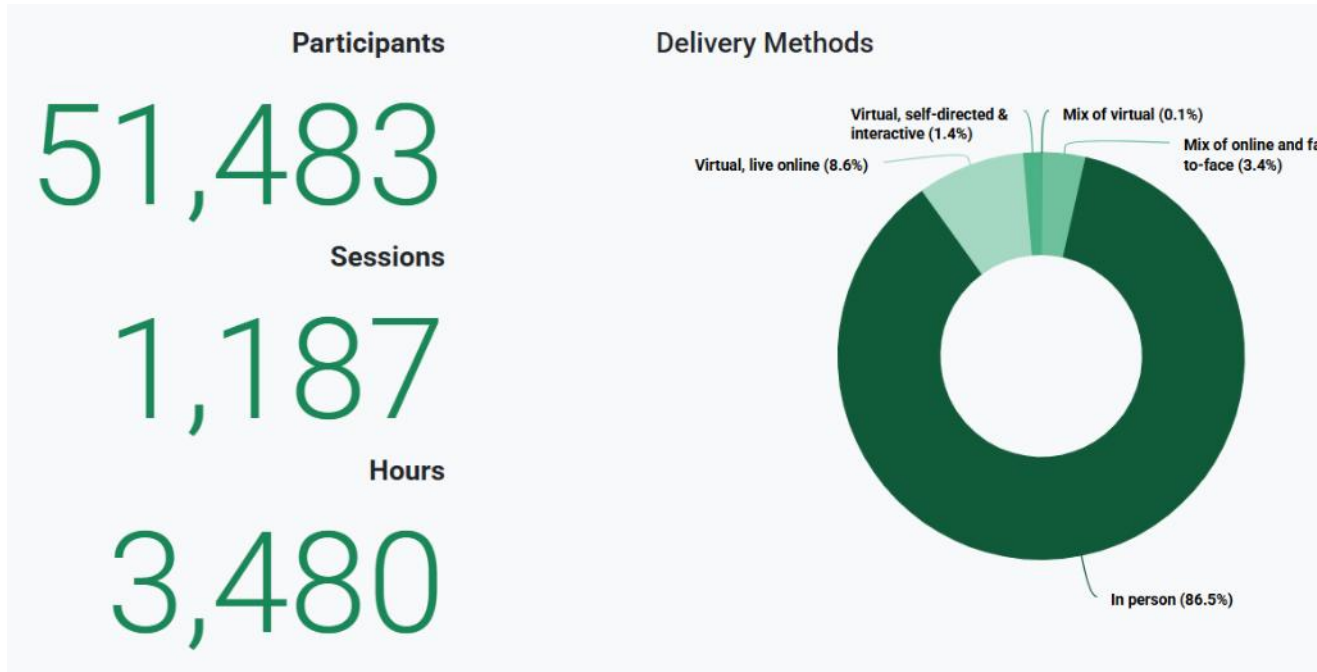
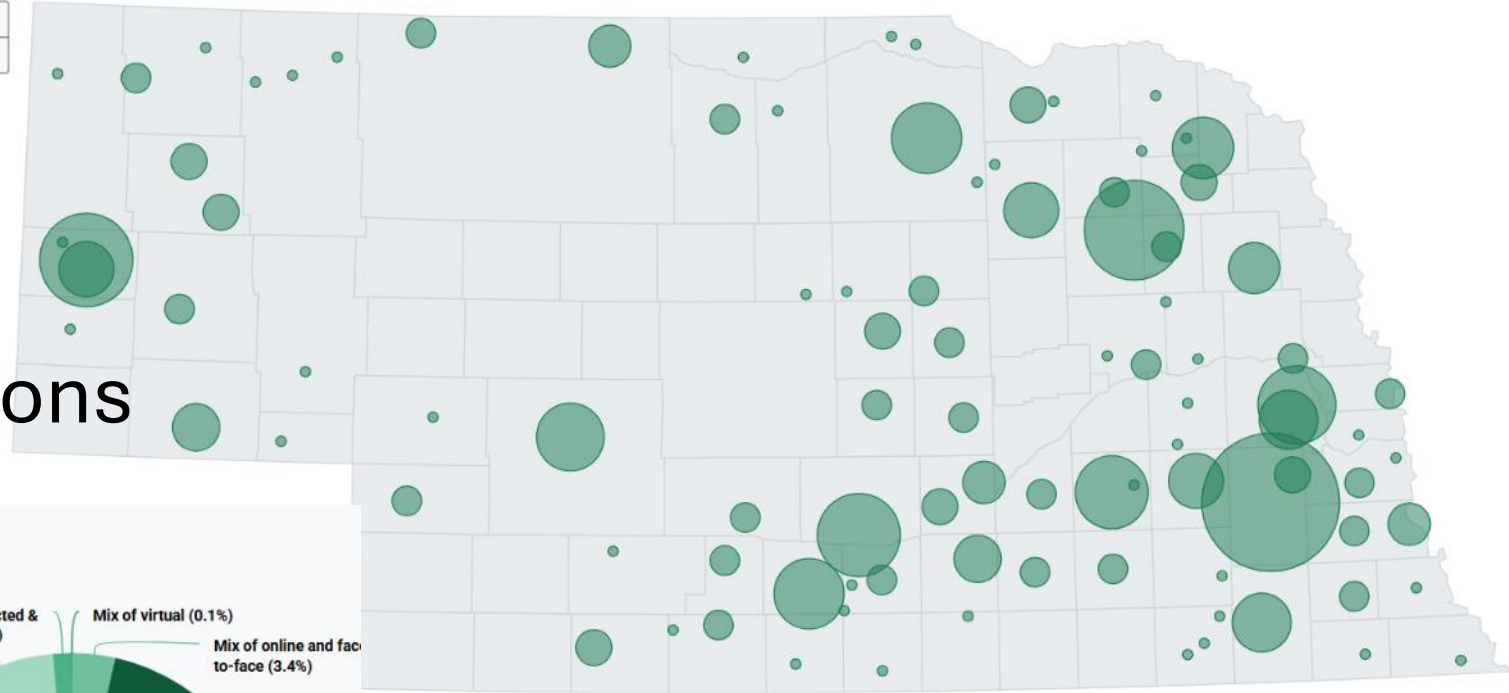
## Strengthen Nebraska's agriculture through **growing more with less**

- Improving cropping systems productivity and profitability
- Protecting the water, soils, and biodiversity that forms the foundation of the places we call home



# 2024 Water & Crops team reach

Direct reach:  
28K Nebraska crop operations



Outreach:  
11 million



# Nitrogen and Water Management 2024

## Reach

5,500 water & nitrogen

1,500 soil health

## Impact

\$10.50/ac from 4Rs Nutrient Stewardship Day

98% of attendees at Soils School improved understanding

100% of Master Irrigator respondents had an intended follow-up action

*“All Nebraskans have a role to ensure a future with abundant, safe water.”*

2020 Nebraska Nitrate Working Group



# **N** Nebraska On-Farm Research Network

## After Attending Our Research Results Meetings

87%

Of attendees learned new information on technology.

92%

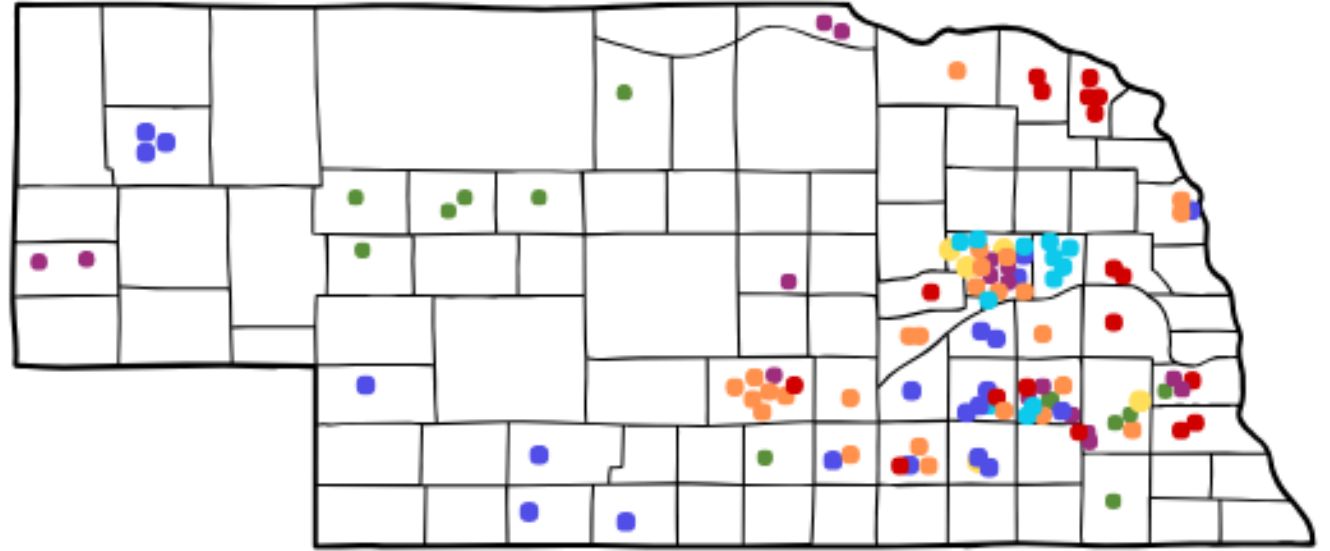
Of attendees learned new information on crop production.

88%

Of attendees learned new information on how to interpret statistical results.

77%

Of attendees learned new information on crop protection.



## 2025 Studies

- Cover crops
- Crop Production
- Fertility & Soil Management
- Non-Traditional
- Equipment
- HICCIIP
- Crop Protection

On-Farm Research participants implement their adoptions for an average of 7-8 growing seasons, with an average savings between:

\$15–30 per acre on average

An Estimated

\$10.6 million in total program impact



*“Directly from the competition I have changed my nitrogen rates seeing that top 30% of yields from the competition many times have a wide range of nitrogen applied. This means the little extra nitrogen that many believe boosts the yield typically does not provide the benefit. I now apply at or below the UNL rate...” Ryan Hanousek*

413 participants since 2017

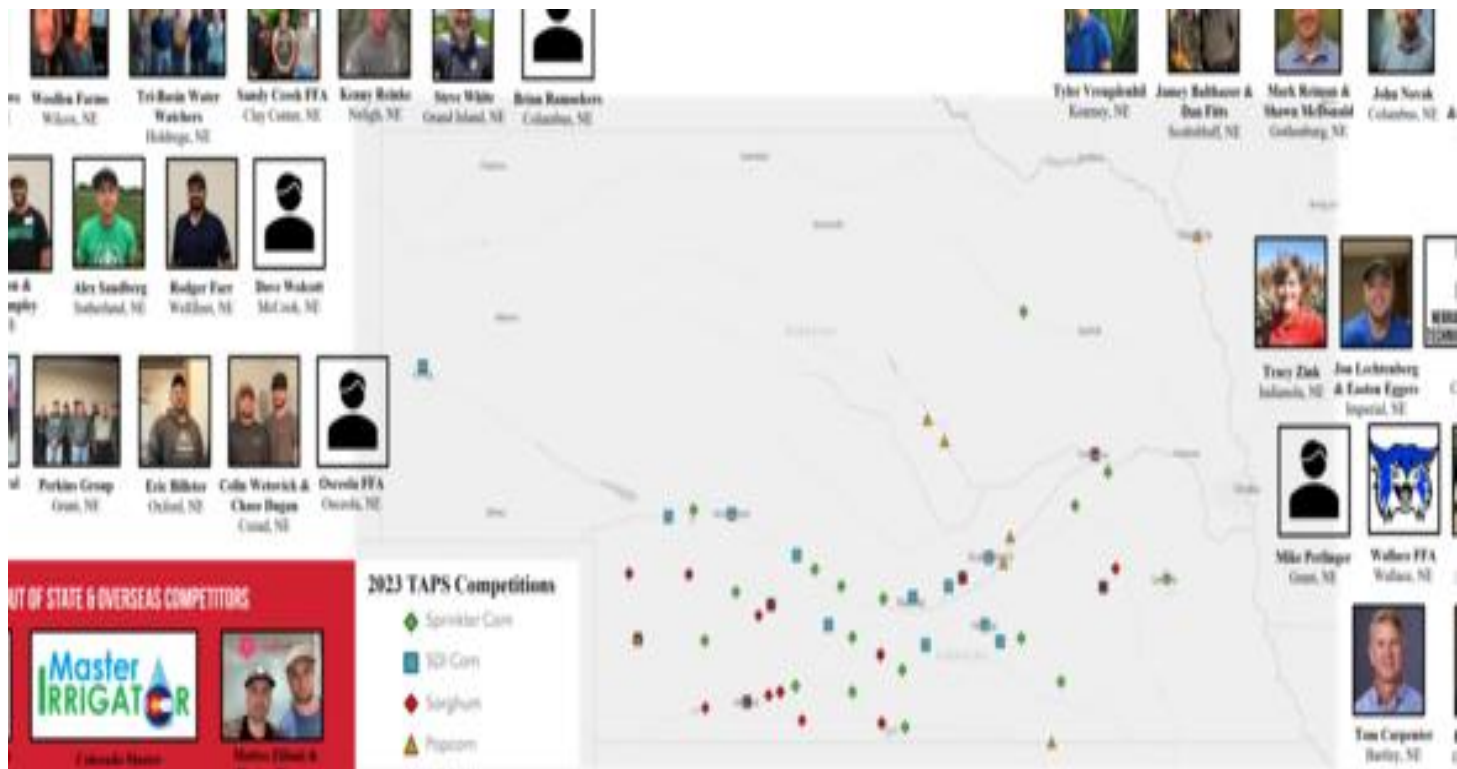
106 industry partners

86%

adopted new management practices

75%

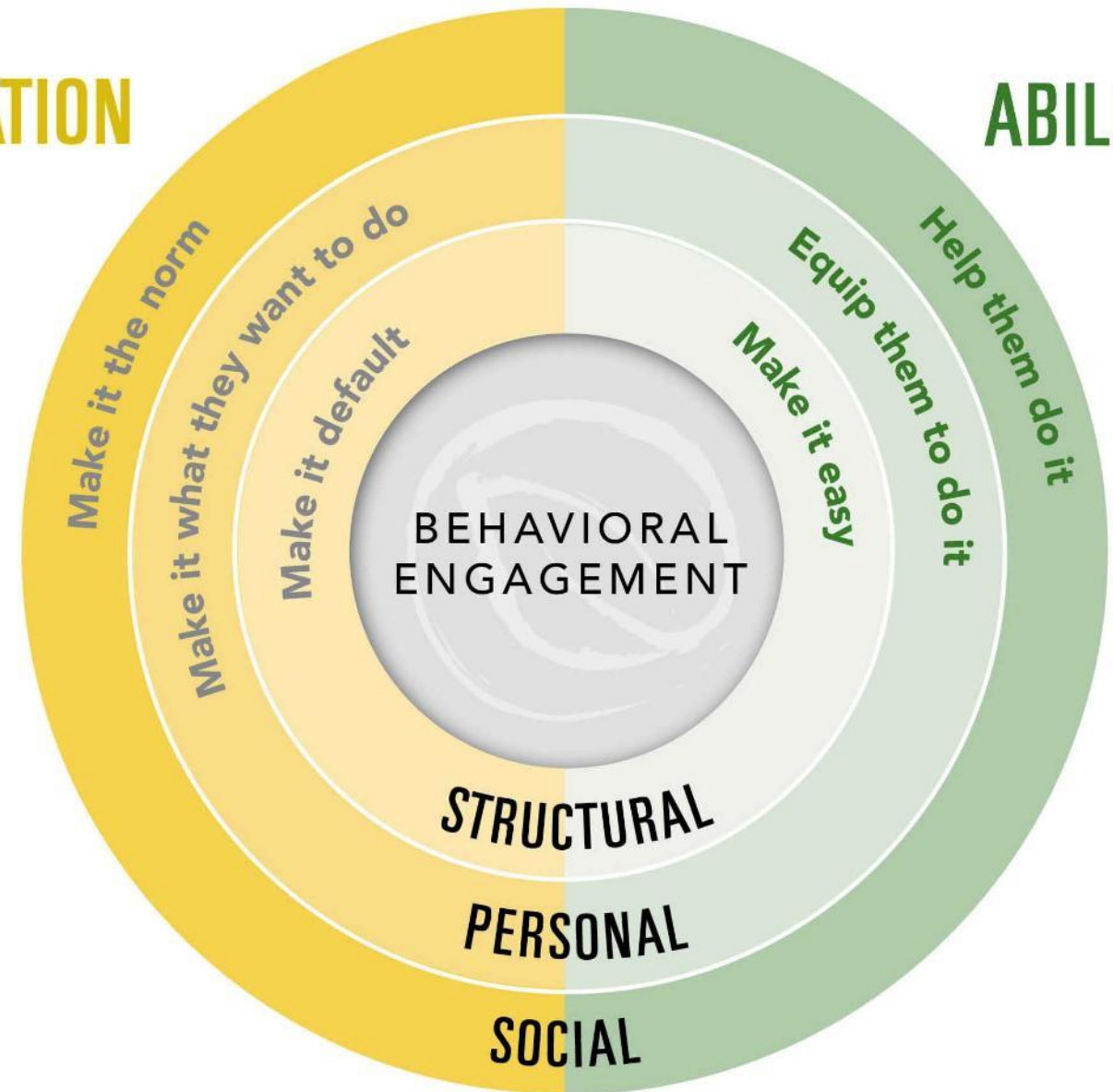
adopted new ag tech



# Our theory of change

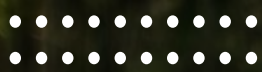
**MOTIVATION**

**ABILITY**



# Team Impact Portfolio





Invest in programs  
with impact

# Nebraska Agriculture Learning Network



Connect

**SHOP TALK: LOCAL PEER-  
LEARNING GROUPS**



Test

**TAPS COMPETITION**



Experience

**NEBRASKA ON-FARM  
RESEARCH NETWORK**

# Nebraska Master Farmer certification: Water Steward endorsement

## **Experience core (20 hrs)**

- \*New\* Peer learning groups
  - In-person, irrigated & dryland
  - Online?
- TAPS
- NOFRN
  - N challenge

## **Knowledge Core (10 hrs)**

- \*New\* online courses
  - Irrigation
  - Soil fertility
  - Water science
  - Soil health & climate resilience
  - Communicating conservation
- Existing Extension portfolio
- Existing partner courses

Final assessment: Water Stewardship Action Plan

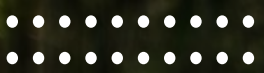


# Incentive-based education examples

Master Irrigator graduates receive:

- Texas: access to conservation district cost-share (Local \$)
- Oklahoma: \$2,000 toward irrigation technology (State \$)
- Colorado: cash payment (State \$), NRCS priority points
- Minnesota: regulatory certainty (State)





Measure impact

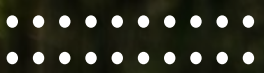
# Measure the impact of investment

## Education investment

- Extension measures:
  - How are producers changing?
  - What is the reduction in water & N?
  - What value does it bring to farmer?

## Incentive Investments

- How does policy impact farmer bottom line?
- Did the policy improve water outcomes?
- Daugherty Water for Food Policy team (Ag Economics) has an analyst team



Invest in Capacity

# Network of Water Science

220+ academic faculty

## Educators

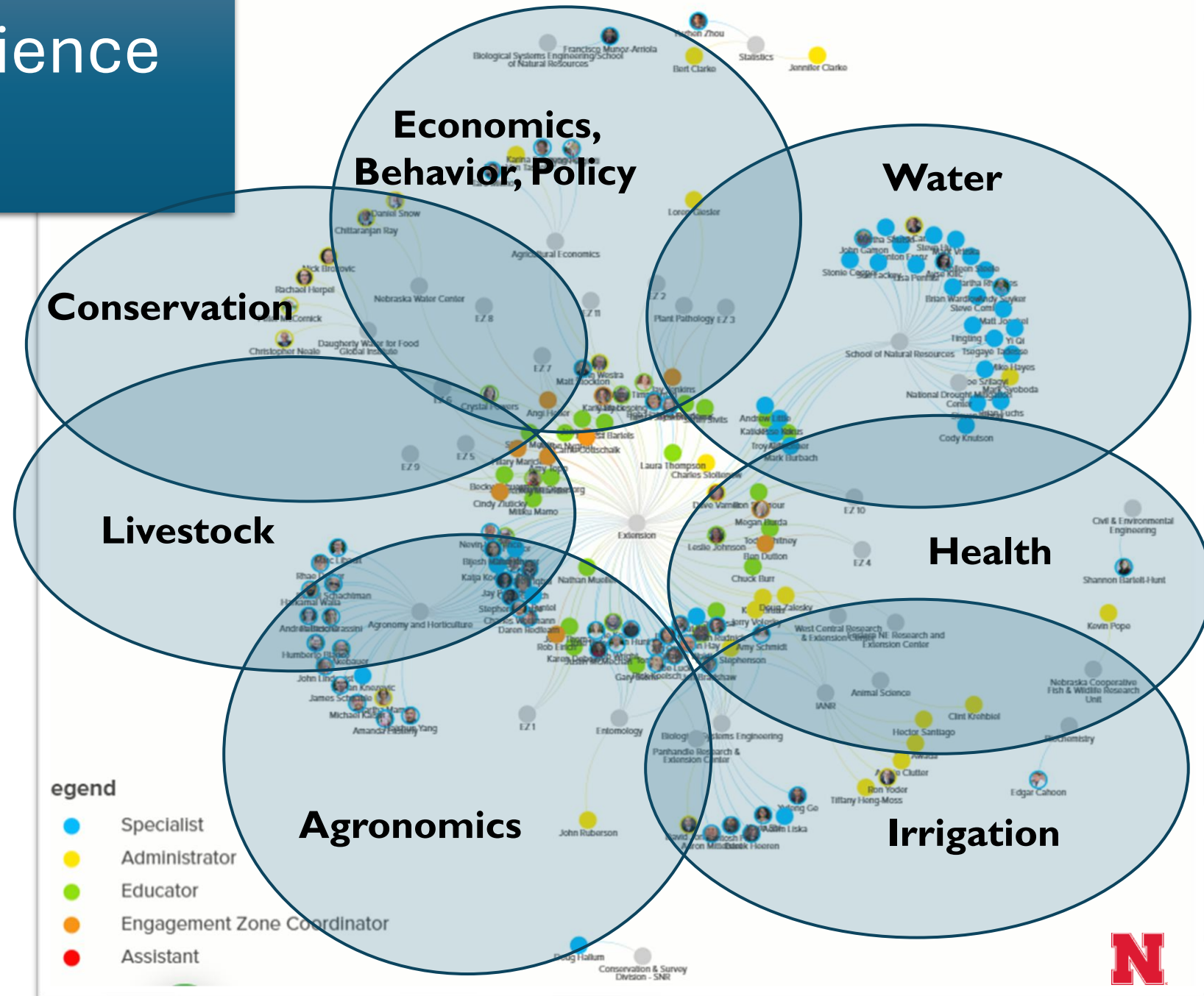
- 13 Statewide
- 23 County-based

## Specialists (18FTE)

- 15 Agronomy & Horticulture
- 7 School of Natural Resources
- 6 Biological Systems Engineering
- 4 Entomology
- 4 Plant Pathology

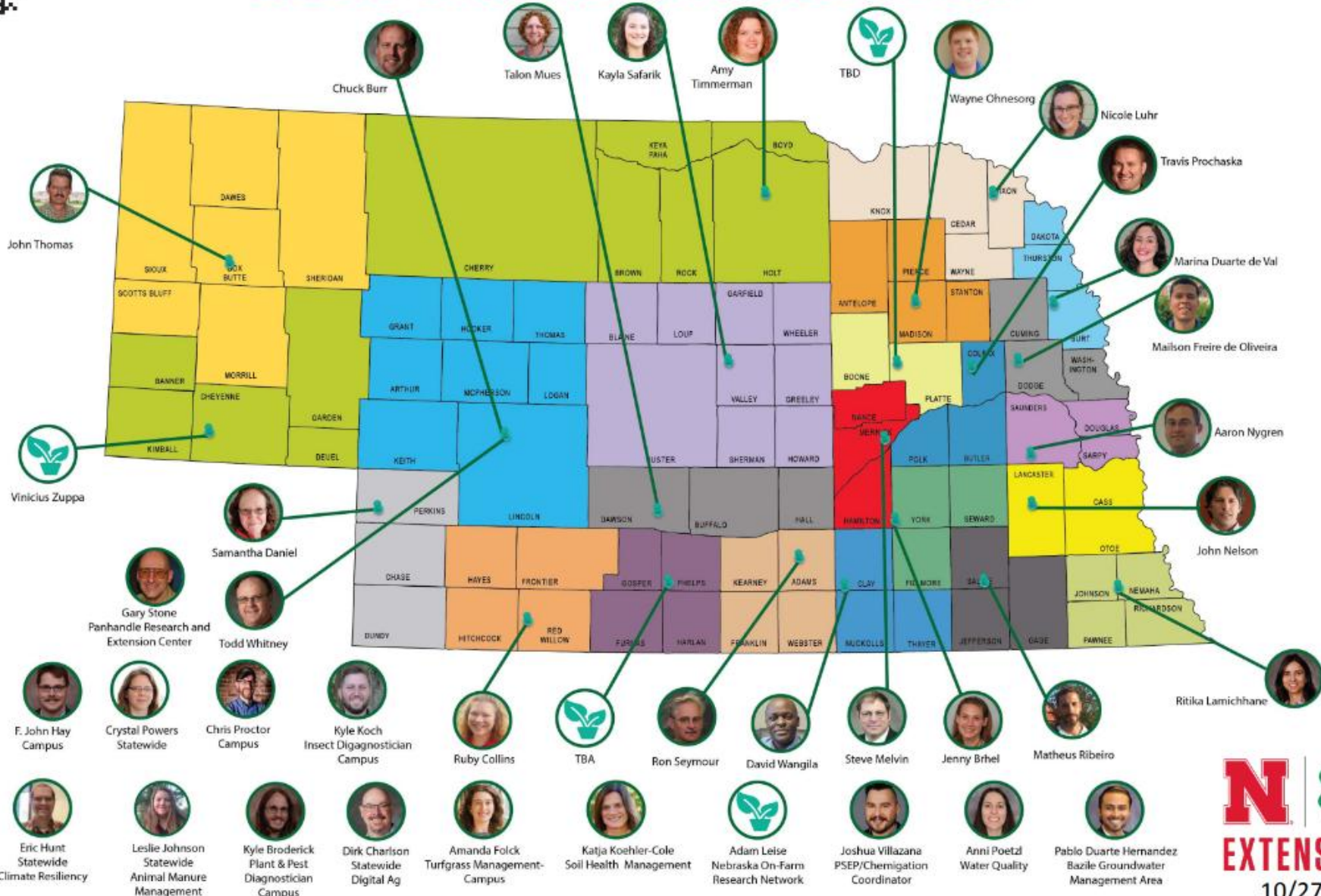
## Support staff:

Comms, grants, admin

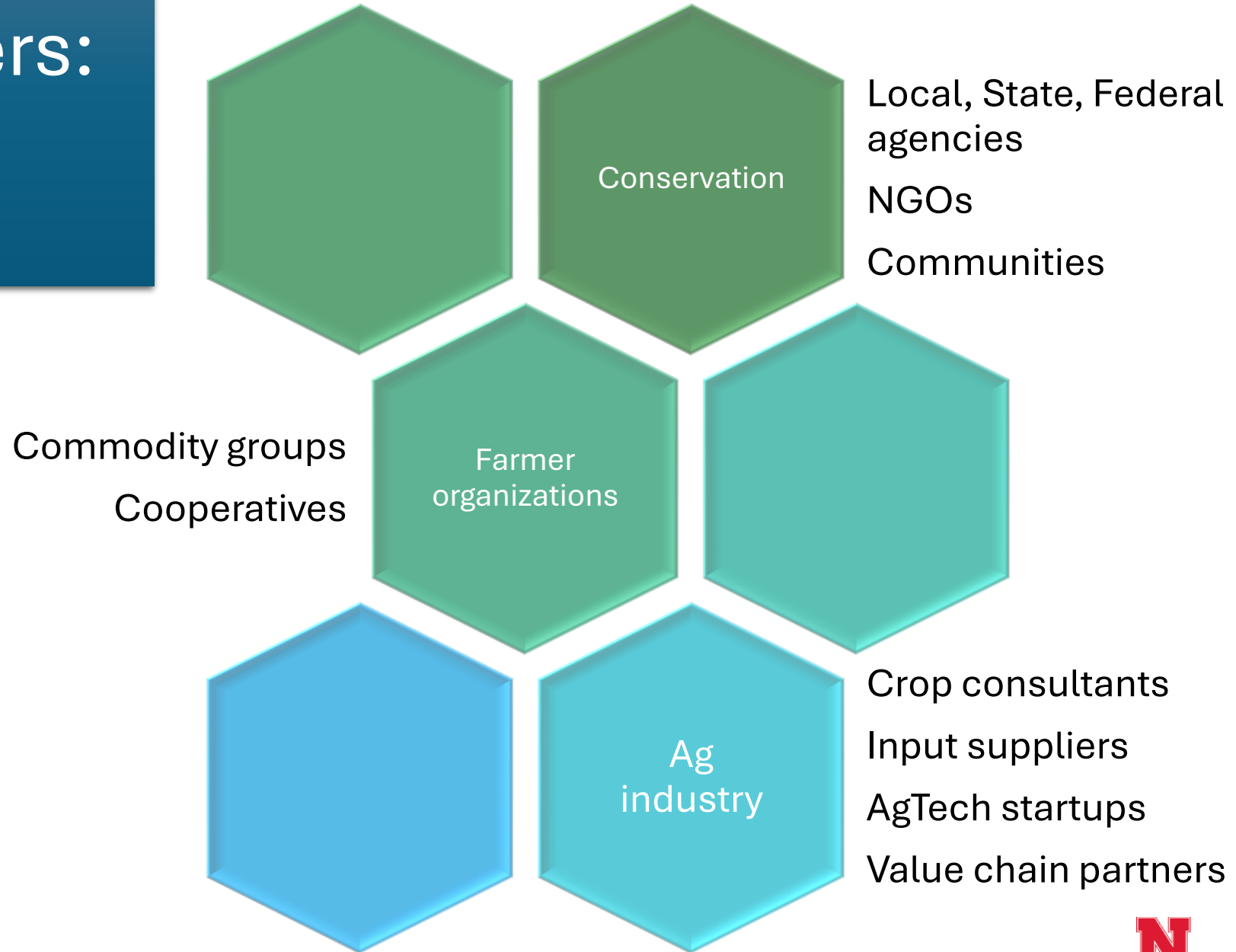


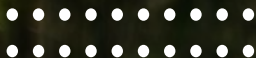


# WATER AND CROPPING SYSTEMS ACCOUNTABILITY REGIONS



# Established partners: Nexus of agriculture





Safe Water Today

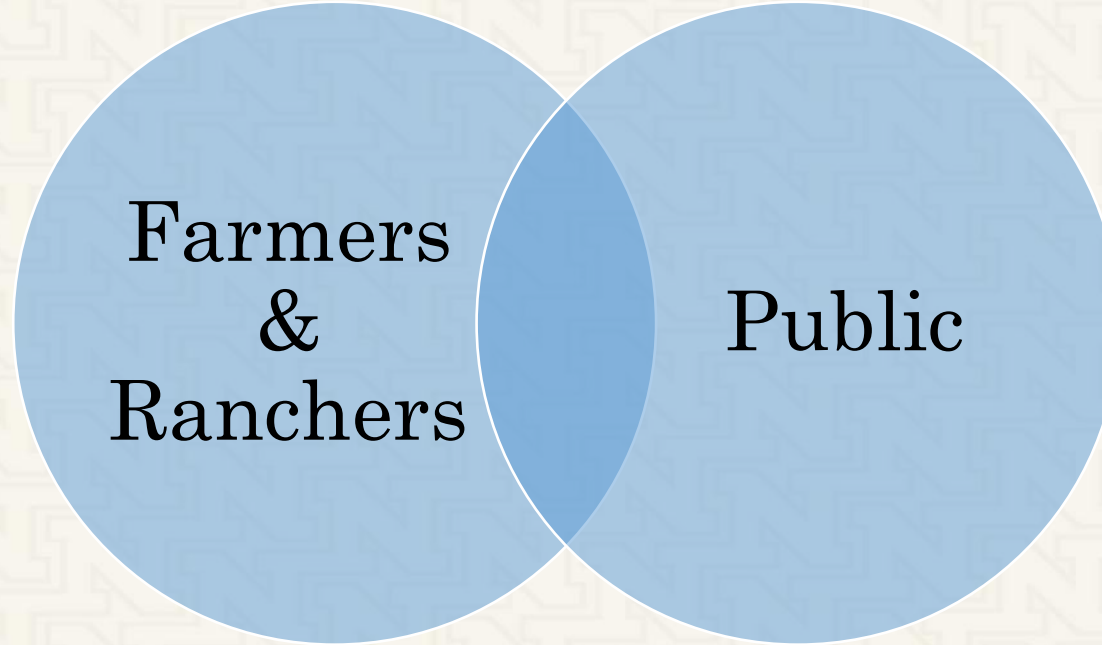


# Drinking water & health education

- Team: Becky Scheurman, Anni Poetzl, Crystal Powers, UNMC Water Climate & Health
- Content for:
  - Medical clinics & health care providers
  - Daycares & early childhood providers
  - Women in Agriculture
  - Community events
- Test and treat for a variety of water quality concerns



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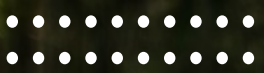
# K-12

## Formal Education

- Know Your Well – A High School Community Science Program
- Water policy social studies

**In-formal:** small, individual programs





How can we support  
the Task Force  
Goals?