

# Seeking Grass-roots Water Solutions

NEWBA

December 2013

## Producer-driven solutions

How do we preserve our precious water for generations to come? NEWBA is partnering with 27 forward thinking ag producers in 14 Natural Resources Districts to test water saving strategies in two Water for Generations Demonstration Projects:

### “Just in Time” Water project:

(11 producers in areas with blue stars on the map)

This project is testing “real time” measurement of:

- Crop consumptive water use
- Water applied by irrigation systems
- Water available in soil root zones

to give producers the data they need to make wise decisions about when to start and stop irrigating crops. Growers, vendors, power companies, sponsors, crop consultants, NRDs, and University Research and Extension are working together to identify winning strategies as well as needed improvements in technologies or techniques.

The project is also tracking nitrogen movement for ways to cut costs and protect water quality.

### Variable Rate Irrigation project:

(17 producers in areas with red stars on the map)

Pivots applying water at a flat rate may apply too much water in some parts of the field to insure that drier, more challenging soils get enough.

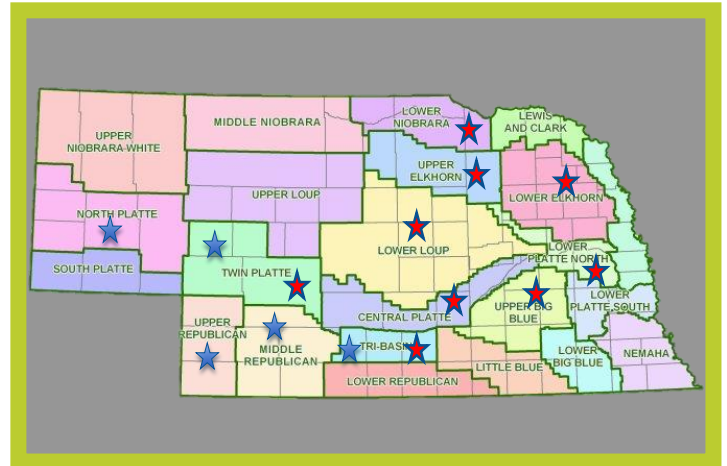
In this project, electrical-conductivity (EM) mapping is used to determine the water holding capacity of different soils in a field. The pivot is equipped with variable speed control and programmed to slow down over lighter soils to apply more water and speed up over heavier ground to put on less water. By optimizing the placement of water, the way is paved for potential yield improvement as well as water and energy savings.

**Attend the January 22  
NEWBA Grower Symposium  
to find out what was learned  
in these projects**

**RSVP (402) 476-0162**

Or for more information:

[www.nebraskawaterbalance.com](http://www.nebraskawaterbalance.com)



## A Process for Finding Winning Solutions:

### ✓ Innovate:

Identify promising technologies, research, strategies.



### ✓ Demonstrate:

Explore practical workability and acceptance.



### ✓ Communicate:

Share results to increase awareness, acceptance, adoption



### ✓ Replicate:

Spread winning solutions to many users.



### ✓ Aggregate:

Quantify watershed impact. Confirm economic benefit.



# Cooperating for Resiliency

NEWBA Day Year

December 2013



## The Tragedy of the Commons

Why is it so important to find ways to cooperatively work on resilient, long term water solutions?

Biologist Garrett Hardin described “the tragedy of the commons” as the reason why shared environmental resources are overused and eventually depleted. His example was a common grazing pasture. People acting in their own self-interest for the greatest, short-term personal gain will graze as many animals as possible until all grass is depleted and the shared resource is no longer useful.

The same thing can happen with shared water resources when farmers, municipalities, industry and environmental interests protect their water interests with limited understanding of the impact of their use on others. NEWBA promotes cooperative efforts to proactively forge practical water solutions *before* we see even more serious depletion of Nebraska’s precious water resources and damage to our economy and our way of life.

With no vested water interests, NEWBA seeks to encourage comprehensive strategies based on physical science that can help us conserve our water resource for all users by promoting solid information, innovation and proactive solutions through incentives.



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At an October strategic planning session, the Board discussed ways to forward NEWBA’s VISION (*broad-based collaboration to find and implement solutions to ensure a legacy of water*) and GOAL (*promote sustainable water solutions that also safeguard our economy and quality of life.*)

Key priorities defined:

1. ***Foster champions*** statewide supporting a balanced approach to water. (Education)
2. ***Foster innovation*** and proactive, cooperative water solutions (Practice)
3. ***Foster practical policies*** derived from effective practices (Policy)

Organizational Initiatives agreed upon:

- Increase board diversity through targeted recruitment of new board members
- Vary locations of board meetings and Water Summits to for promote broader participation
- Post annual calendar on website
- Capitalize on Executive Director Lee Orton’s strong water ties as Director of the State Irrigation Assn., Nebraska Well Drillers and Nebraska On-Site Waste Water Assn.
- Increase outreach and education with Lorre McKeone coordinating communications
- Continue to support practical demonstration projects.