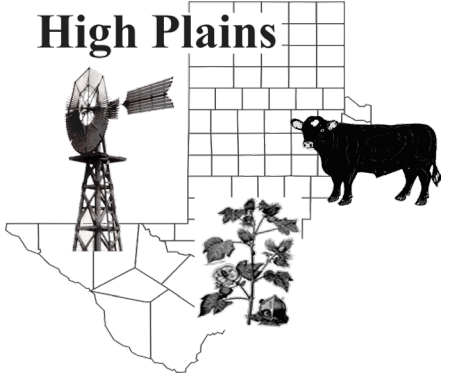

**Producers Across
the Southern
High Plains**

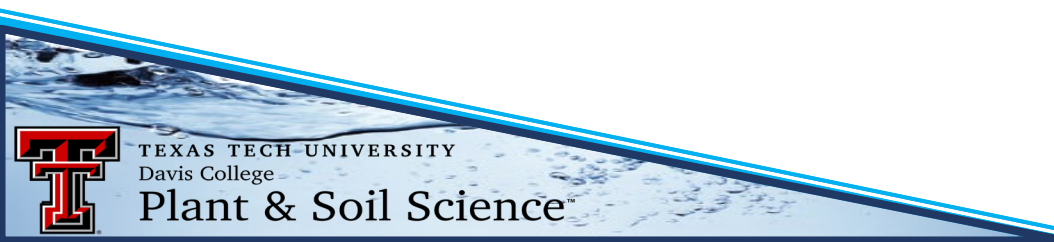


Agricultural Water Research – Texas Tech Davis College Leading the Way

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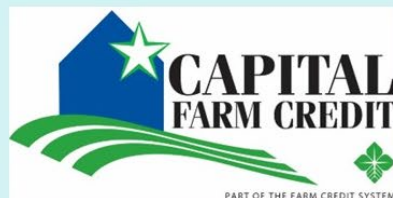
Krishna Jagadish, Program Director
TAWC Project Coordinator



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Natural Resources Conservation Service
U.S. DEPARTMENT OF AGRICULTURE



The TAWC Team



Krishna Jagadish
TAWC Coördinator
Director Davis College Water Center



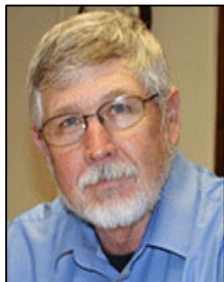
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TAWC Project Director



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TAWC Advisor



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Rudy Ritz
Professor



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Assistant Professor



Rachel Wade
Data analyst &
Economist



Jeff Pate
Producer Relations



Josh Massey
Research Associate

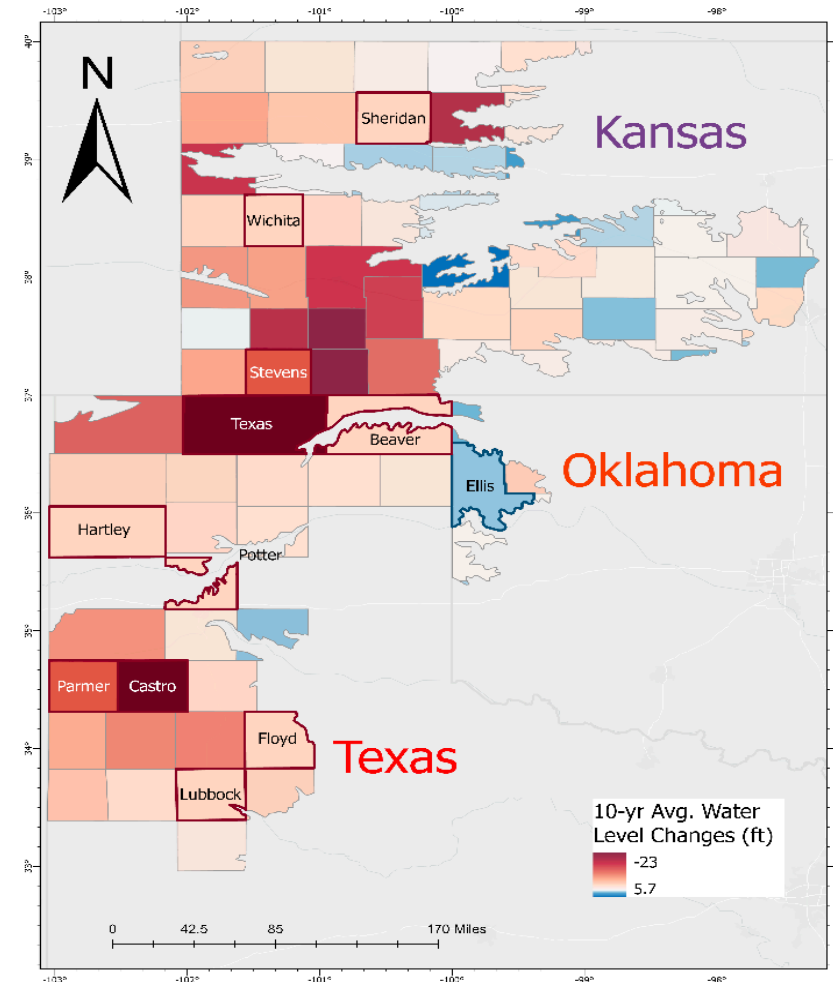
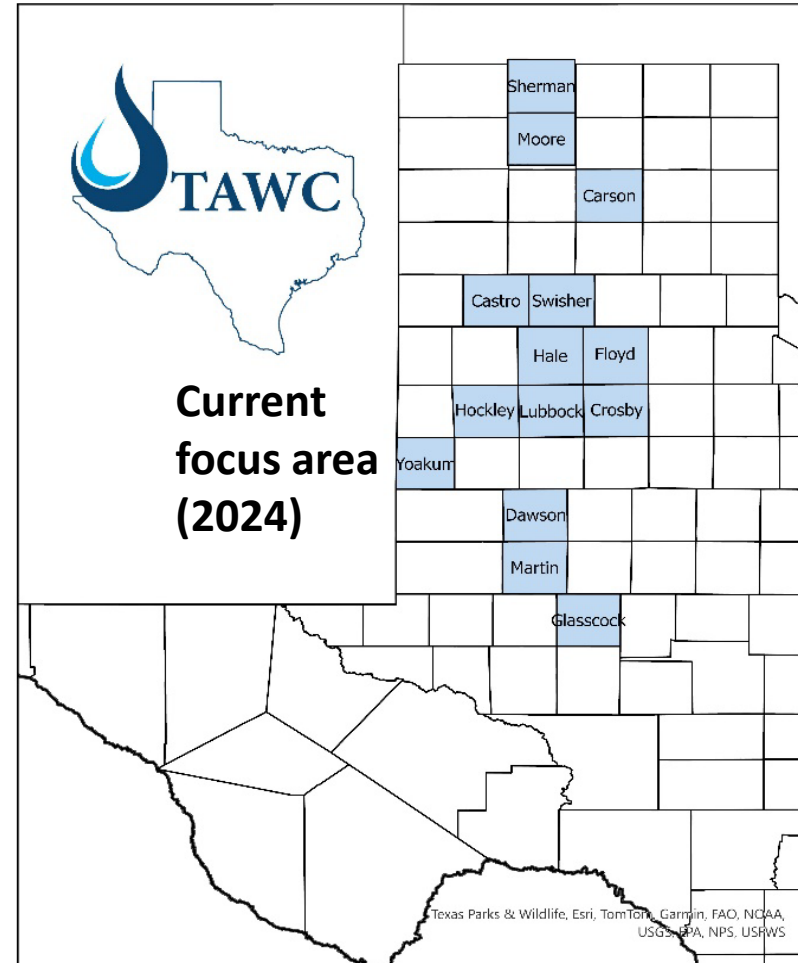
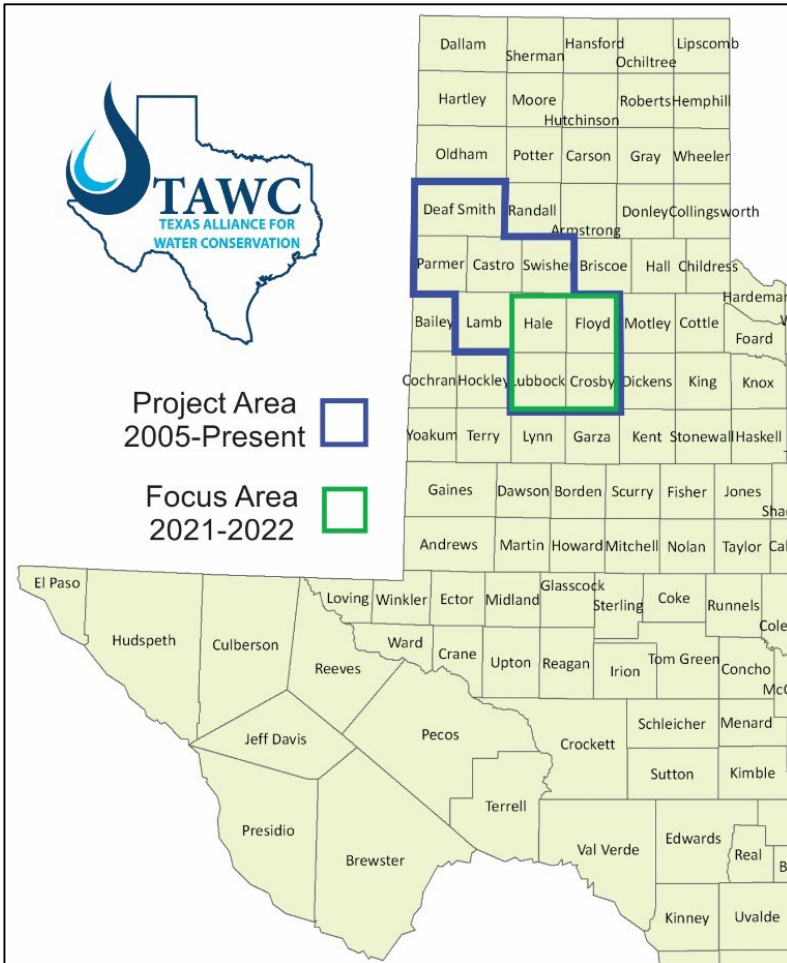


Seth Cope
Program Manager



Mukesh Mehla
Post-Doctoral
Fellow

TAWC's Operational Landscape

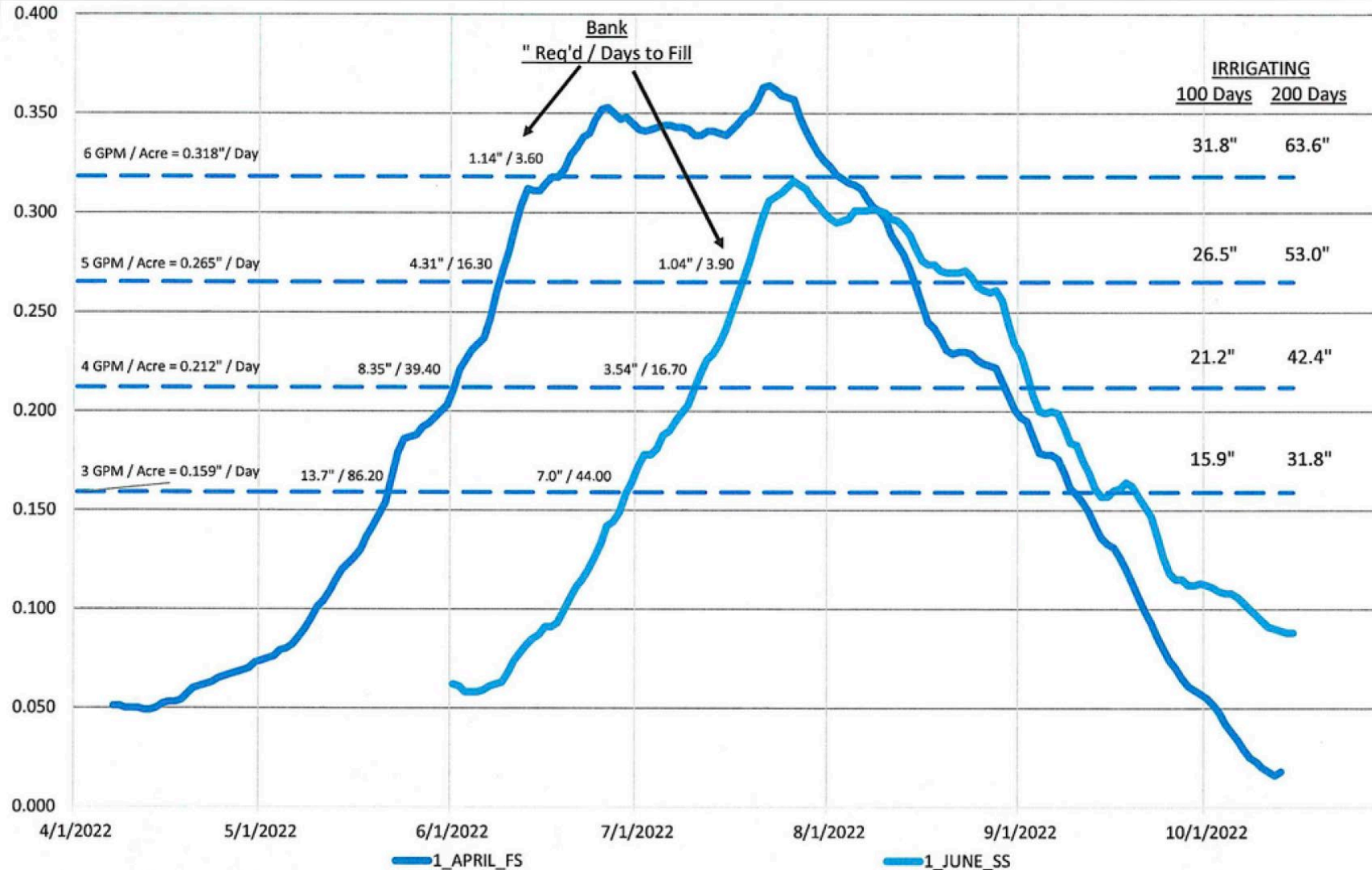


New 2025: USDA Project

Corn Evapotranspiration (ET) Requirements at Various Irrigation Availabilities



Rachel Wade
Data analyst &
Economist



Plant Usage: 37.636"
6 GPM/AC: 92 Days Irr.
3 GPM/AC: 184 Days Irr.

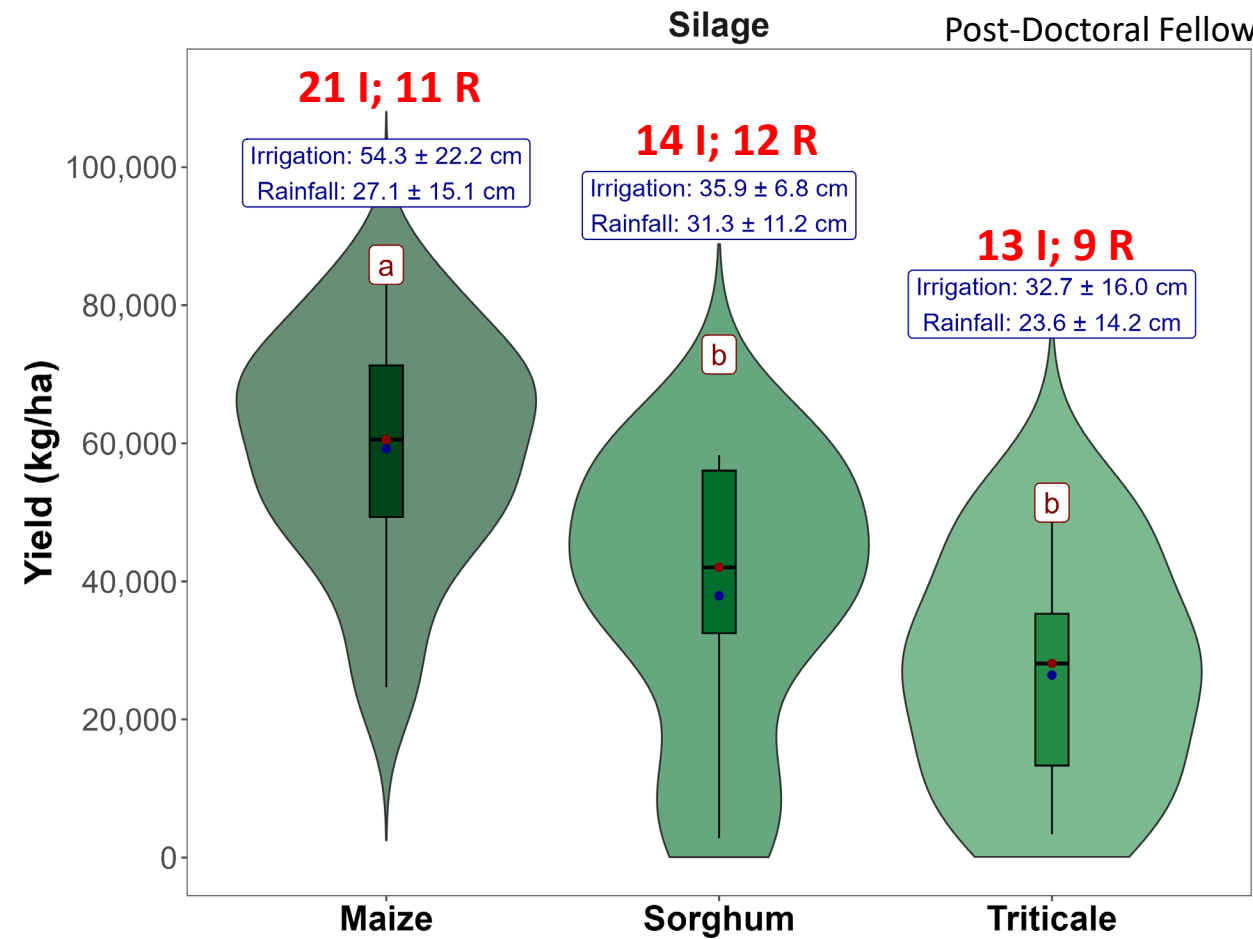
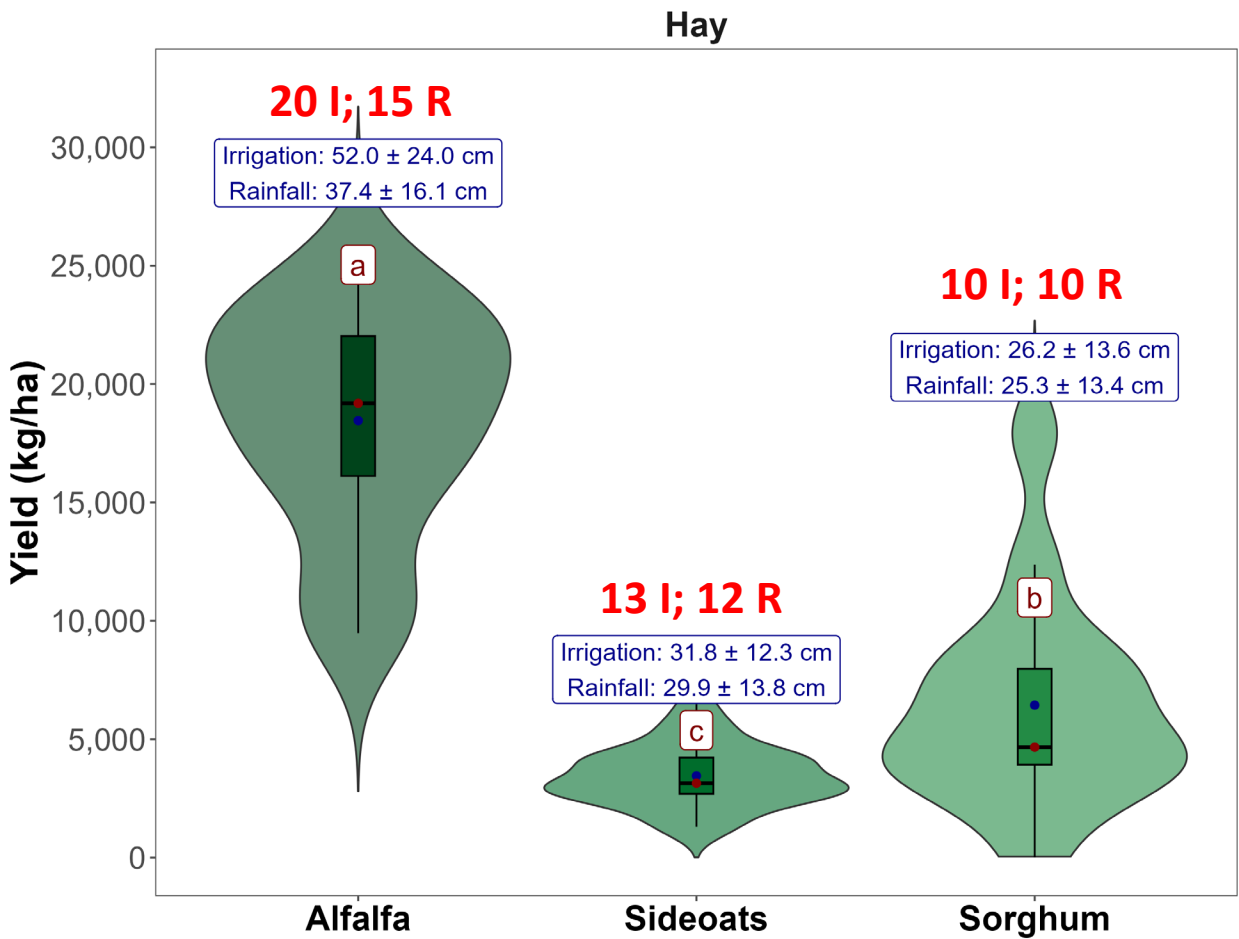
25.679"
54 Days Irr.
109 Days Irr.

$\Delta = 11.96"$
 $\Delta = 38$ Days
 $\Delta = 75$ Days

TAWC Long term forages yield (Phase 1: 2005-18)



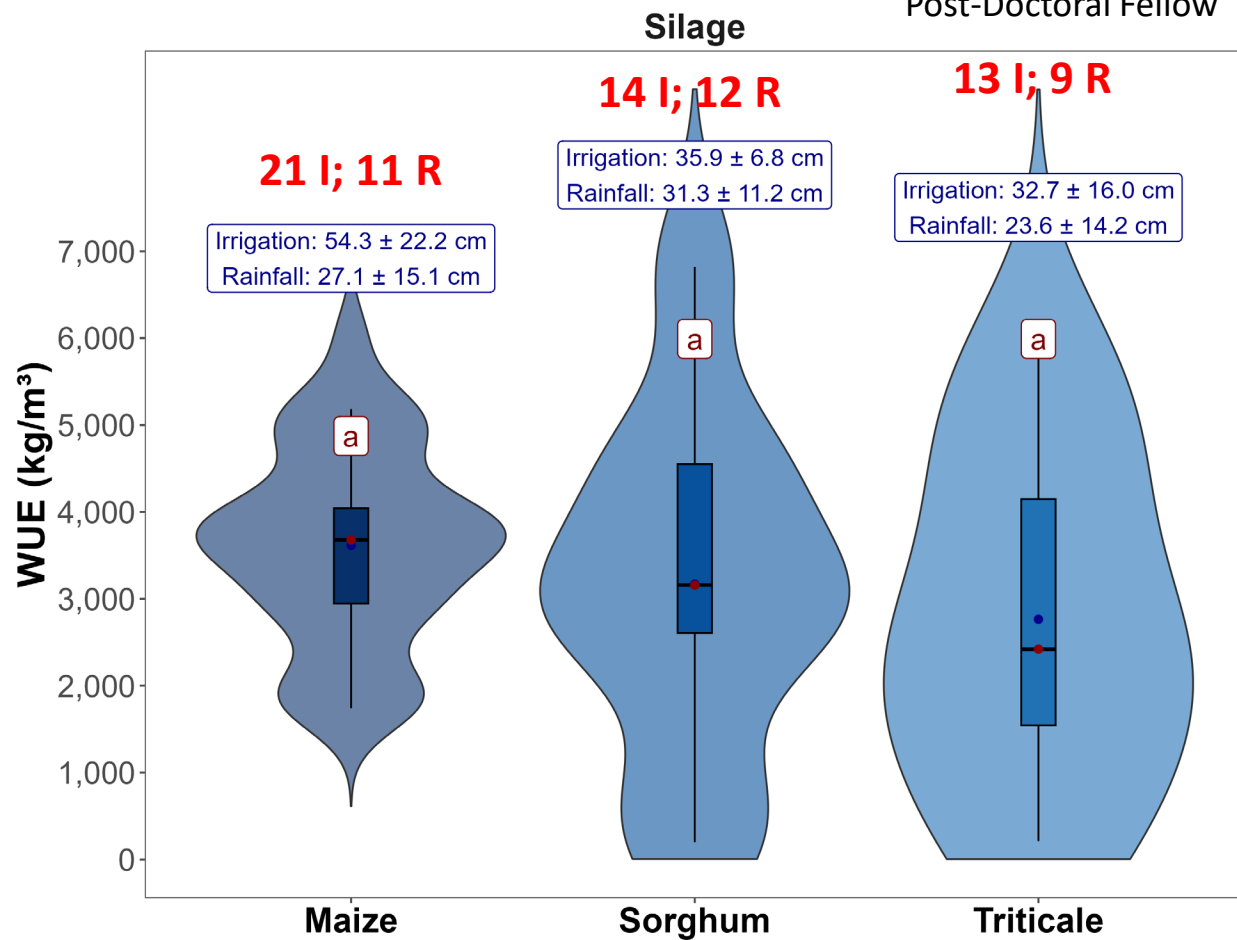
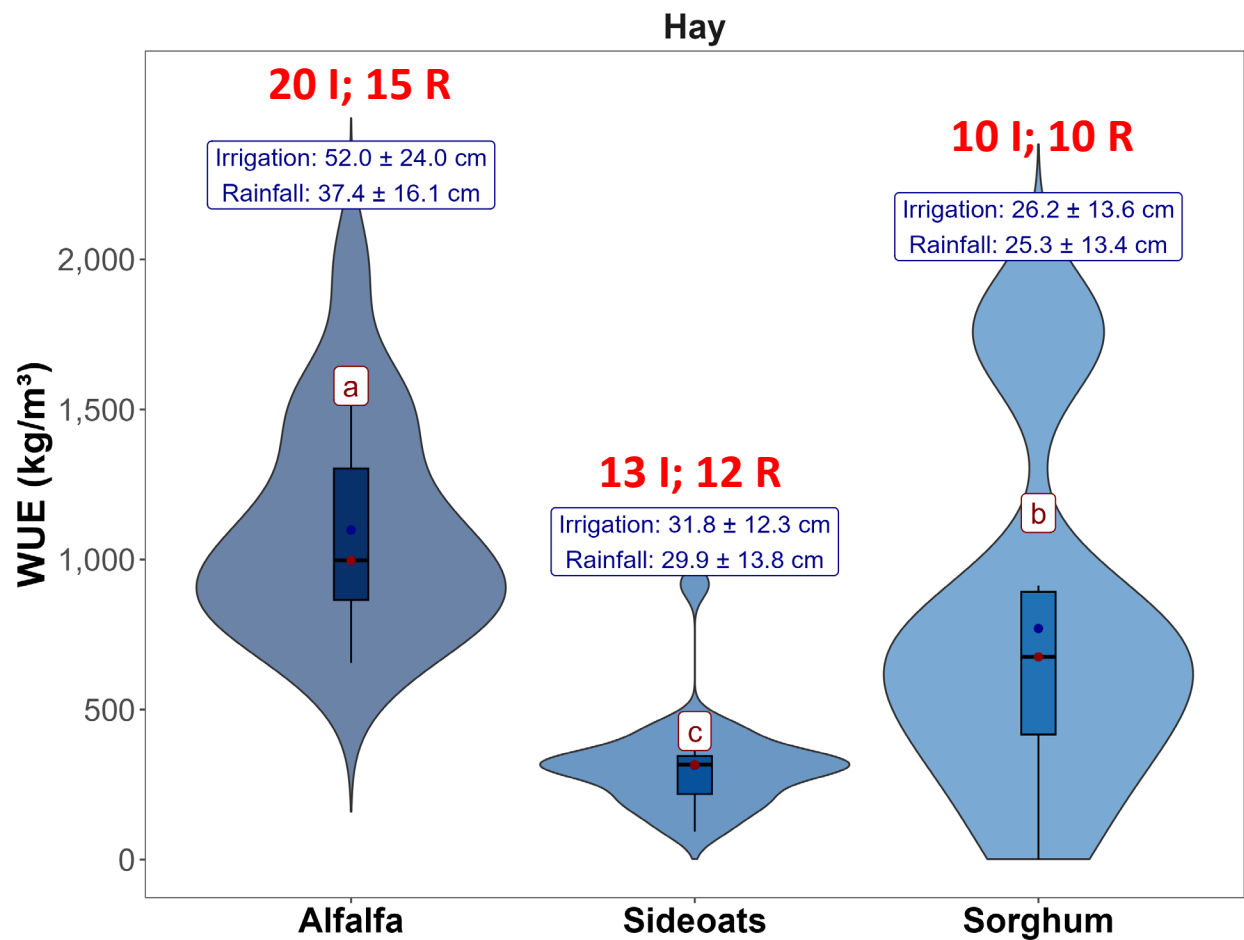
Mukesh Mehla
Post-Doctoral Fellow



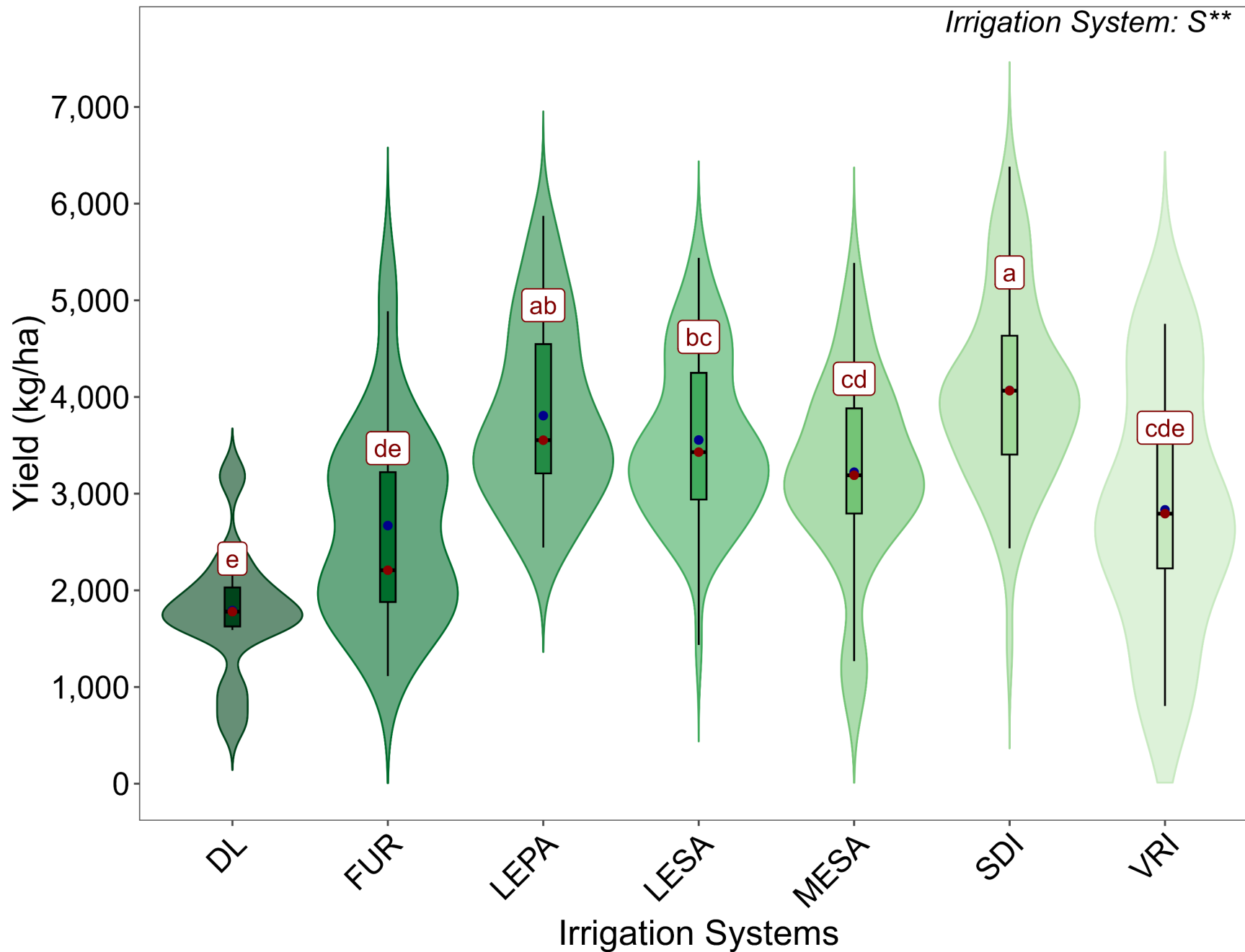
TAWC forages water use efficiency (Phase 1)



Mukesh Mehla
Post-Doctoral Fellow



Yield in Cotton Crop Under Different Irrigation Systems



- DL** – Dryland
- FUR** – Furrow Irrigation
- LEPA** – Low Elevation Precision Application
- LESA** – Low Elevation Spray Application
- MESA** – Mid Elevation Spray Application
- SDI** – Sub-surface Drip Irrigation
- VRI** – Variable Rate Irrigation

Support for TAWC's Expansion



**Long term support &
Continuing.....**

Phase II

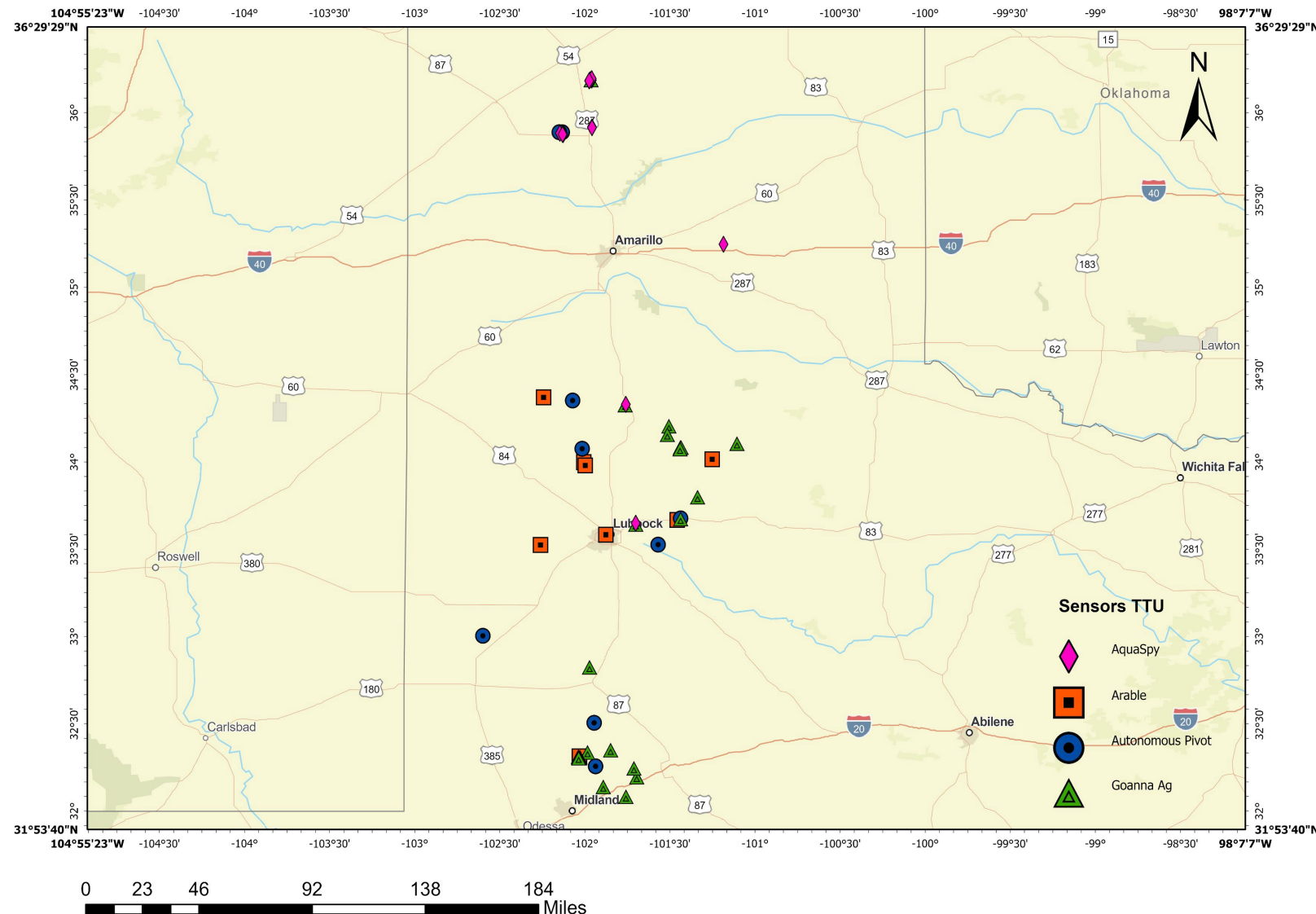
**Irrigation Technologies +
Sensor-based irrigation
management**



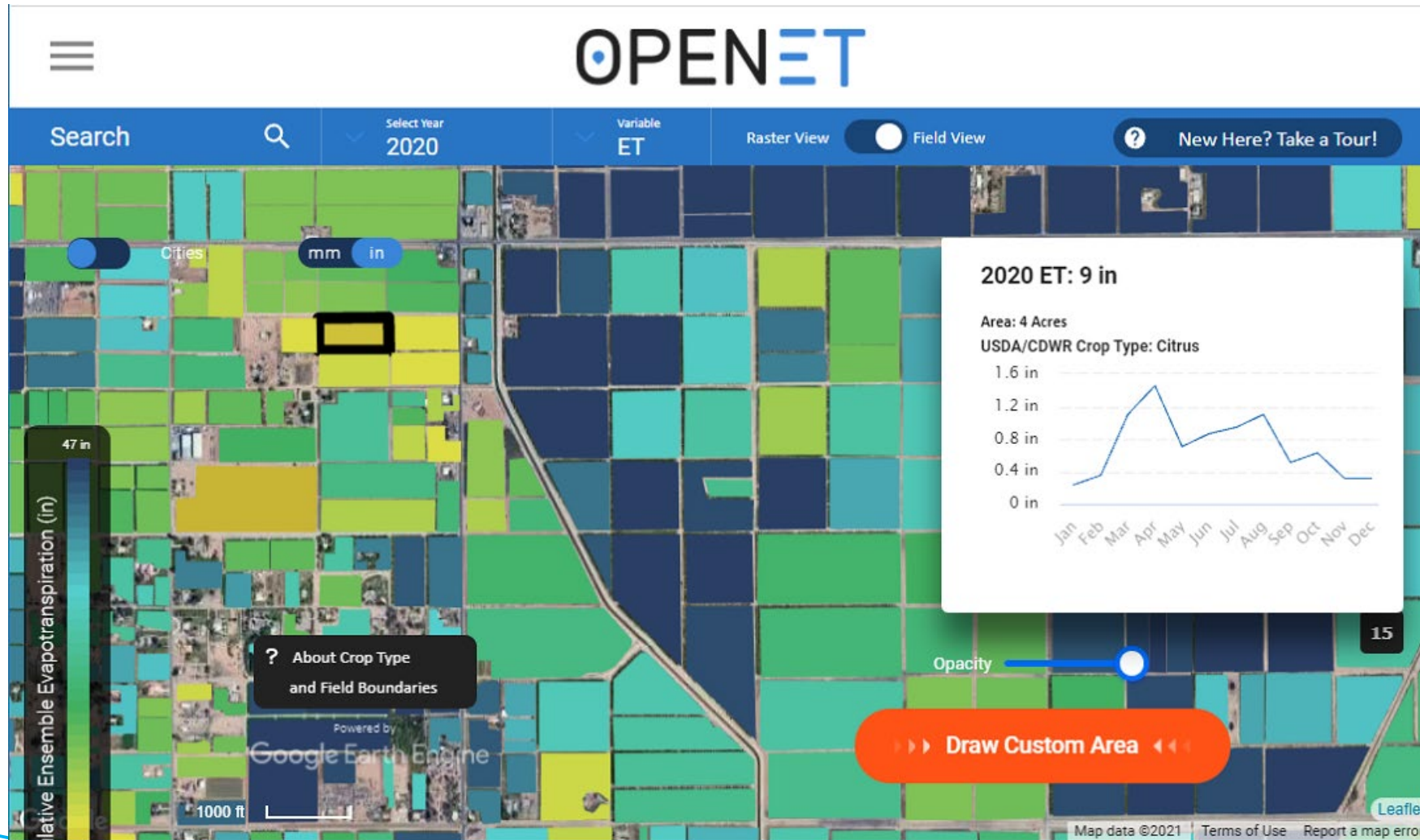
**Large 65M\$ led by National Sorghum
Producer (TAWC key collaborator)**

**A 5M\$ climate smart commodities grant
led by TTU (implemented through TAWC)**

- **No or minimum till**
- **Sorghum-Cotton rotation**
- **Multispecies cover crops**



New: Regional Water Conservation Collaborative Network



KCARE
Kansas Center for Agricultural
Resources and the Environment



**OKLAHOMA WATER
RESOURCES CENTER**



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<https://etdata.org/>

Volk et al., 2024 <https://www.nature.com/articles/s44221-023-00181-7>

Coming Together of Water Centers at TTU



Dr. Darren
Hudson

Ag Water (TAWC
and Davis
College Water
Center)

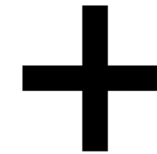
Produced
Water
Consortium



Dr. Shane
Walker

Water
Resources
Center

Conserve Water



Welcome new water

Outreach and Technology Demonstrations



THANK YOU – Angela and Lloyd