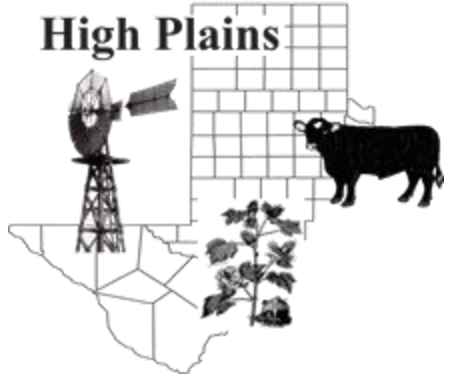

**Producers Across
the Southern
High Plains**



Agricultural Water Research – Texas Tech Davis College Leading the Way

Funded by:



**Krishna Jagadish, Program Director
TAWC Project Coordinator**

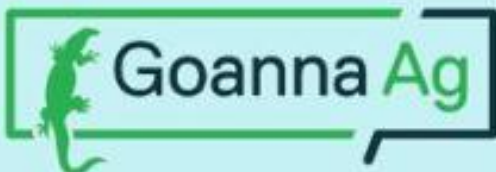


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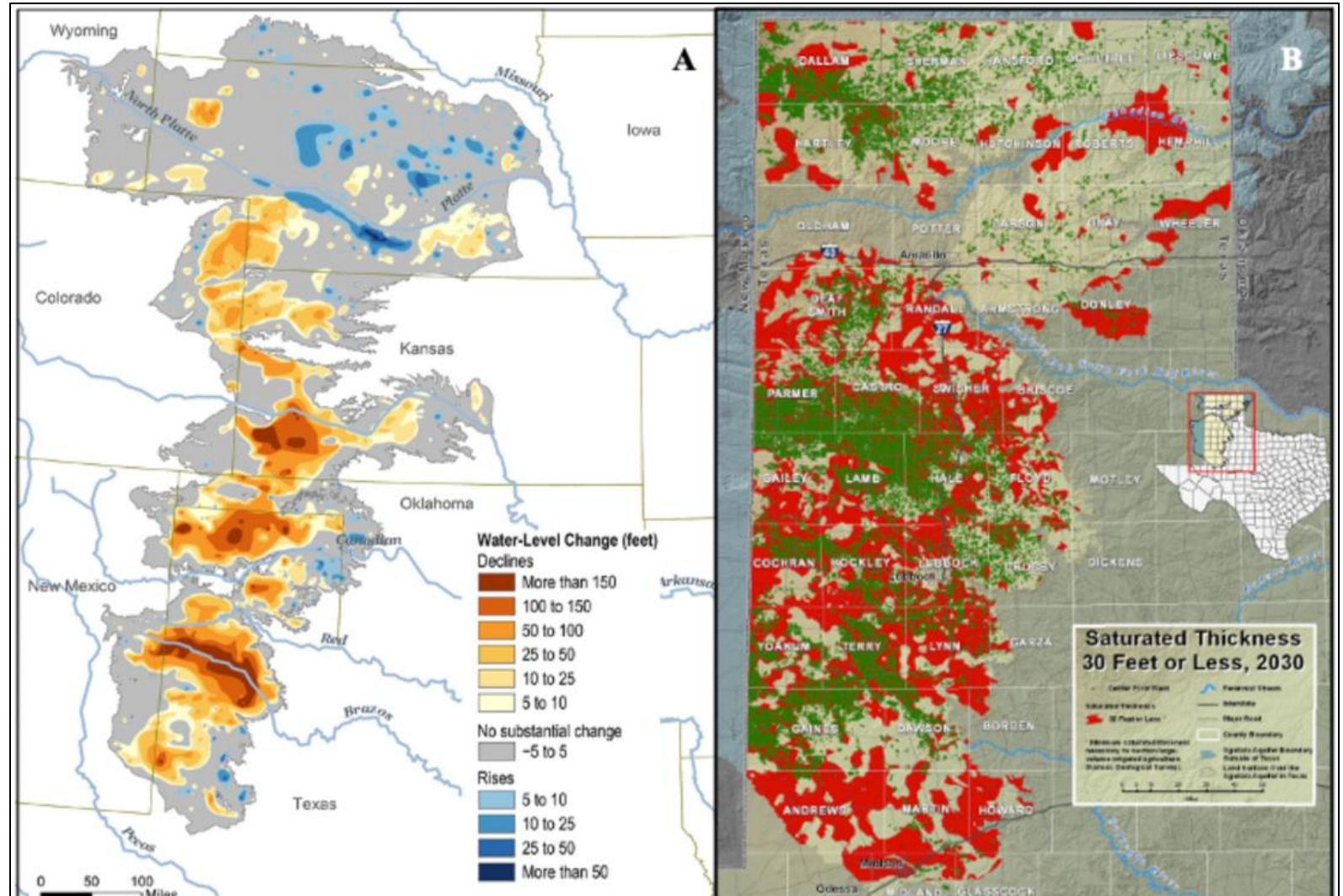
Thank You to All Our Sponsors



Ogallala Aquifer & Percent Saturated-Thickness



- Aquifer covers 174,000 square miles across 8 states in the High Plains of the United States.
- Over 95% water pumped is for irrigated agriculture.
- Average water level during 2007-2017 declined by 8.84 feet in High Plains Underground Water Conservation District No. 1





TAWC Producer Board and Focus

Board members	County
Glenn Schur (Dina)	Hale
Barry Evans (Lindy)	Swisher
Lloyd Arthur (Angela)	Crosby
Riley Teeter (Brook)	Floyd
Layton Schur (Jessie)	Hale
Orin Romine (Jennifer)	Martin
Josh Tunnell (Savanah)	Martin
Travis McCallister (Donna)	Lubbock

Main Focus

- Conservation through research, demonstration, and technology
- Whole system economic analysis and sustainability
- Dissemination of information through communications, outreach, and education

TAWC Change in Leadership

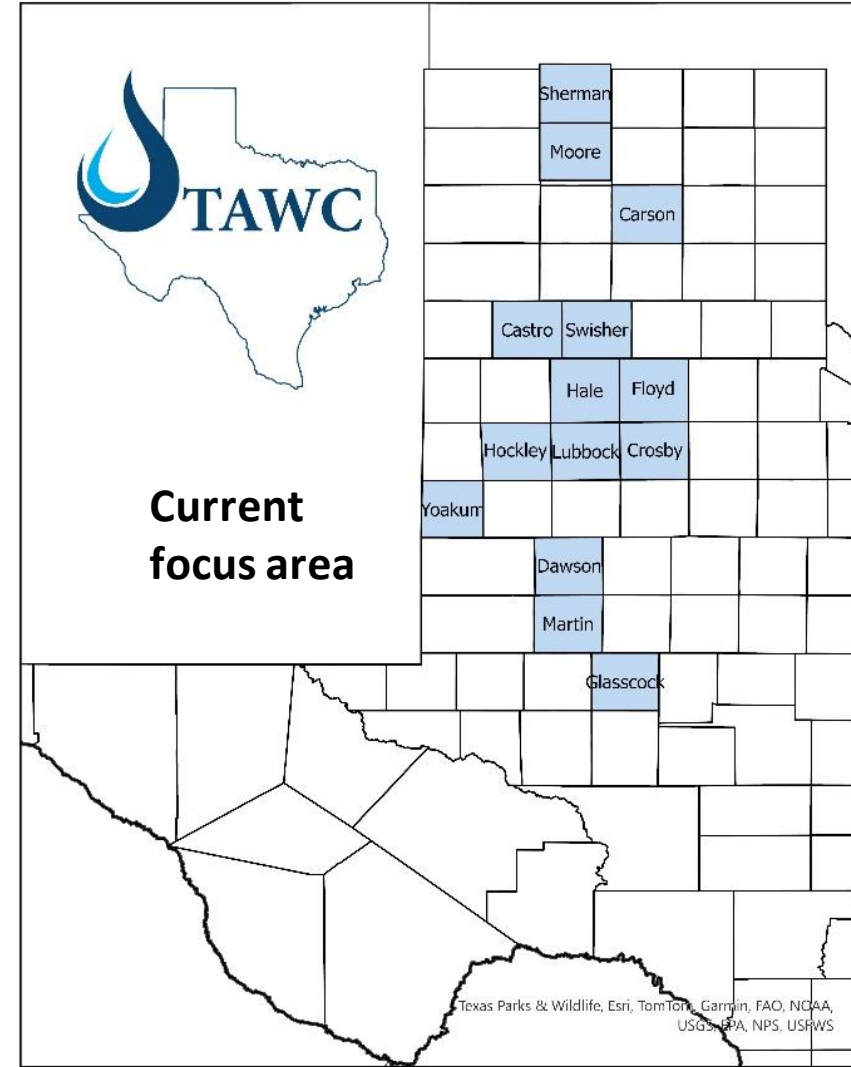
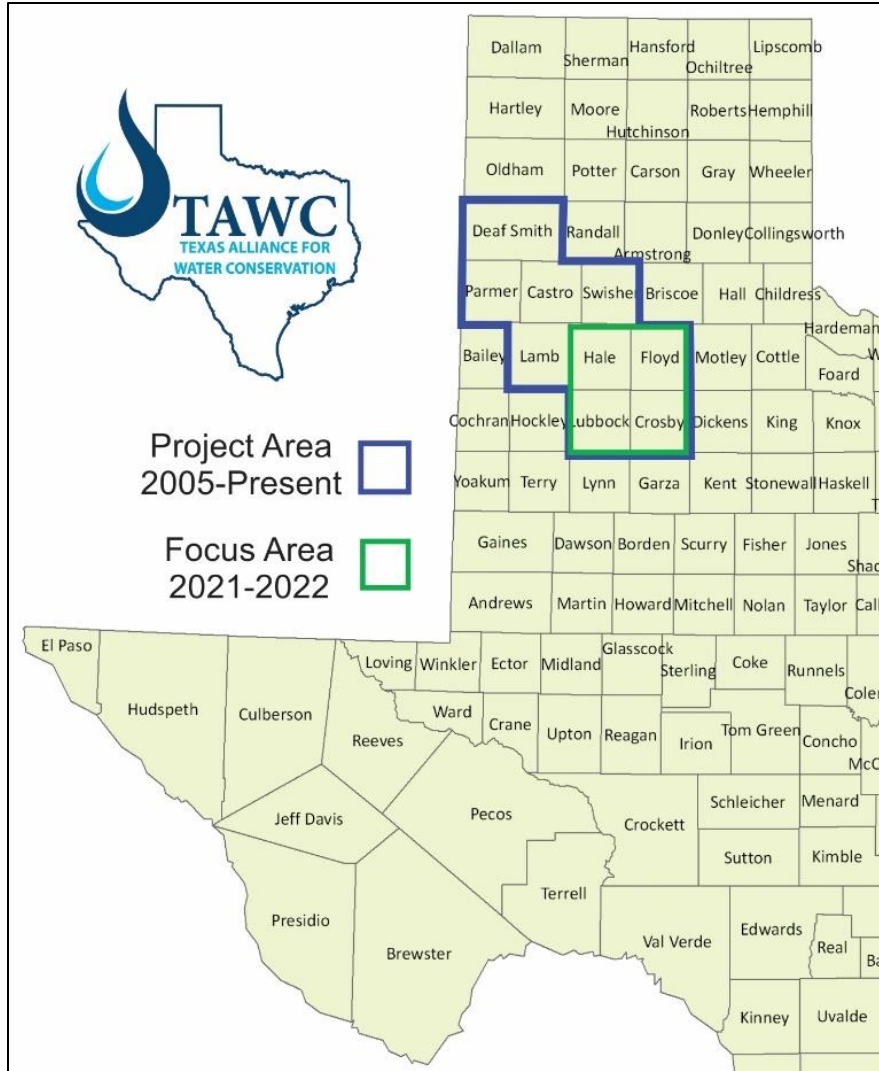


Rick Kellison
TAWC Advisor



Samantha Borgstedt
TAWC Director

TAWC's Operational Landscape



Support for TAWC's Expansion



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

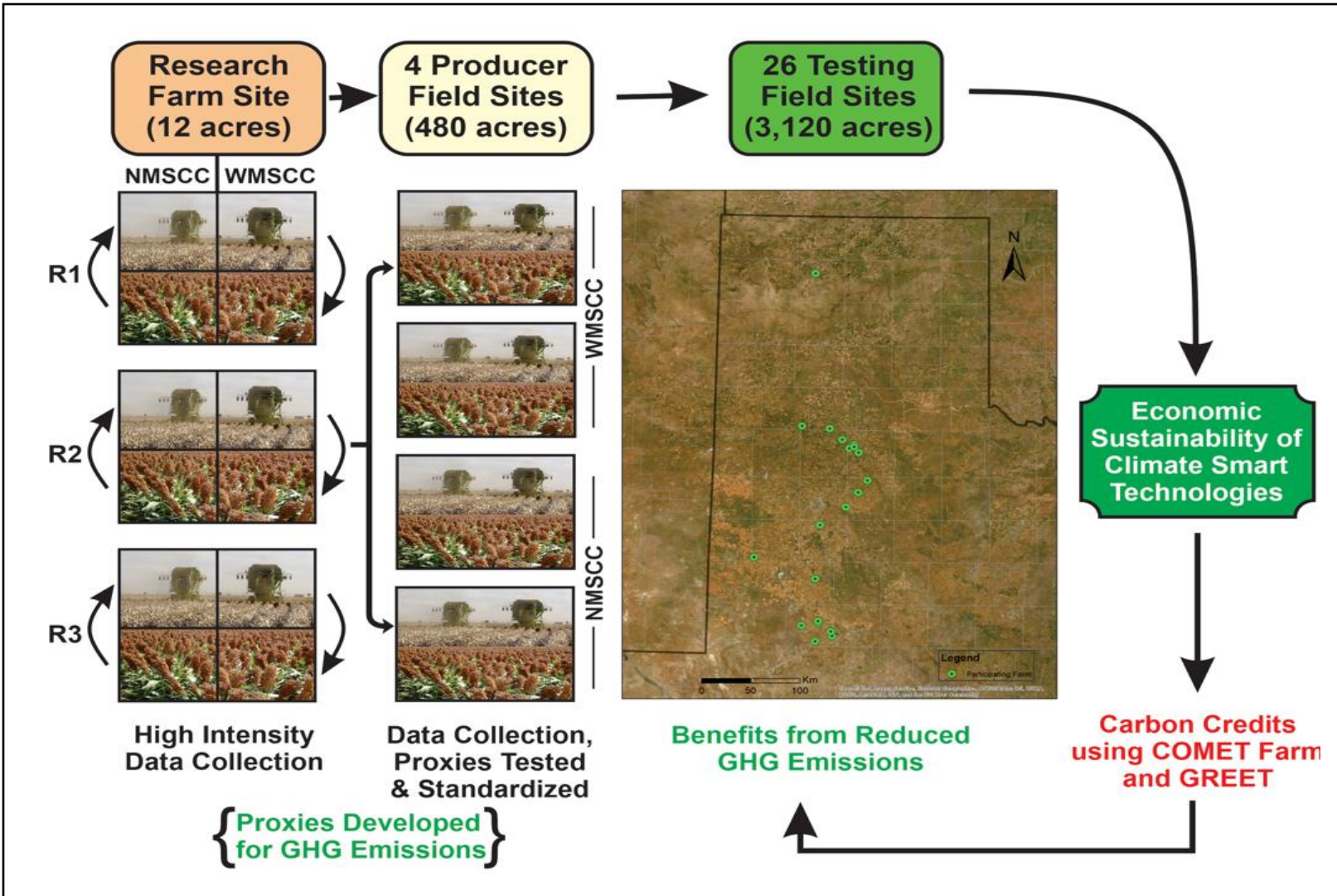


**Large 65M\$ led by National Sorghum
Producer (TAWC key collaborator)**

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

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

New Climate Smart Commodities Grant



Incentives

Moisture sensing technologies

Weather stations (as needed)

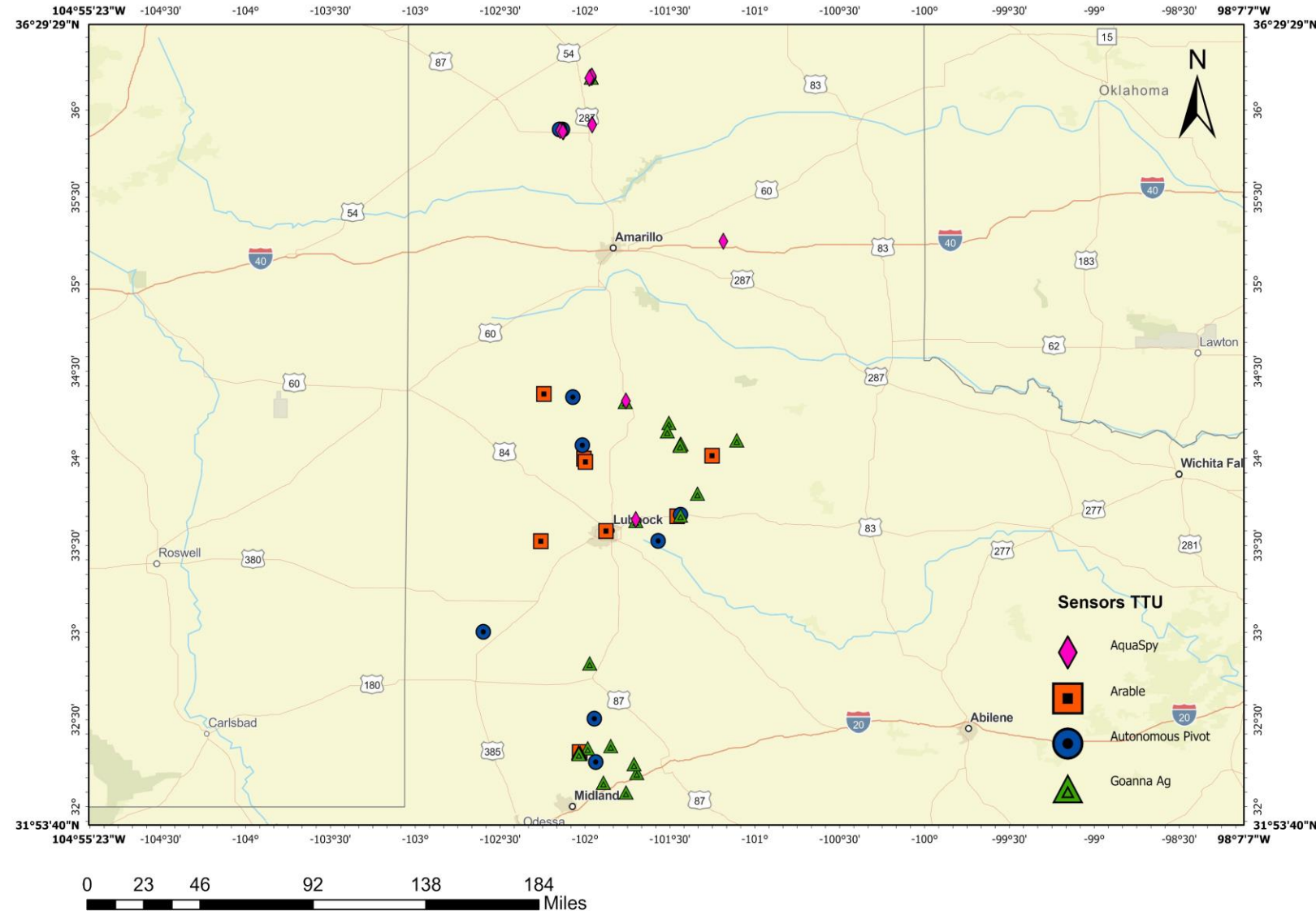
Soil analysis

\$10/acre/year for time committed

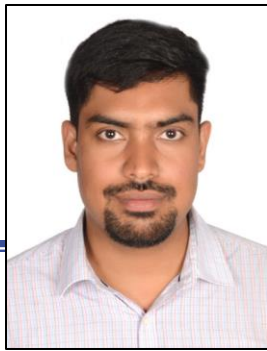
\$750/year for turning in records

Technical help**

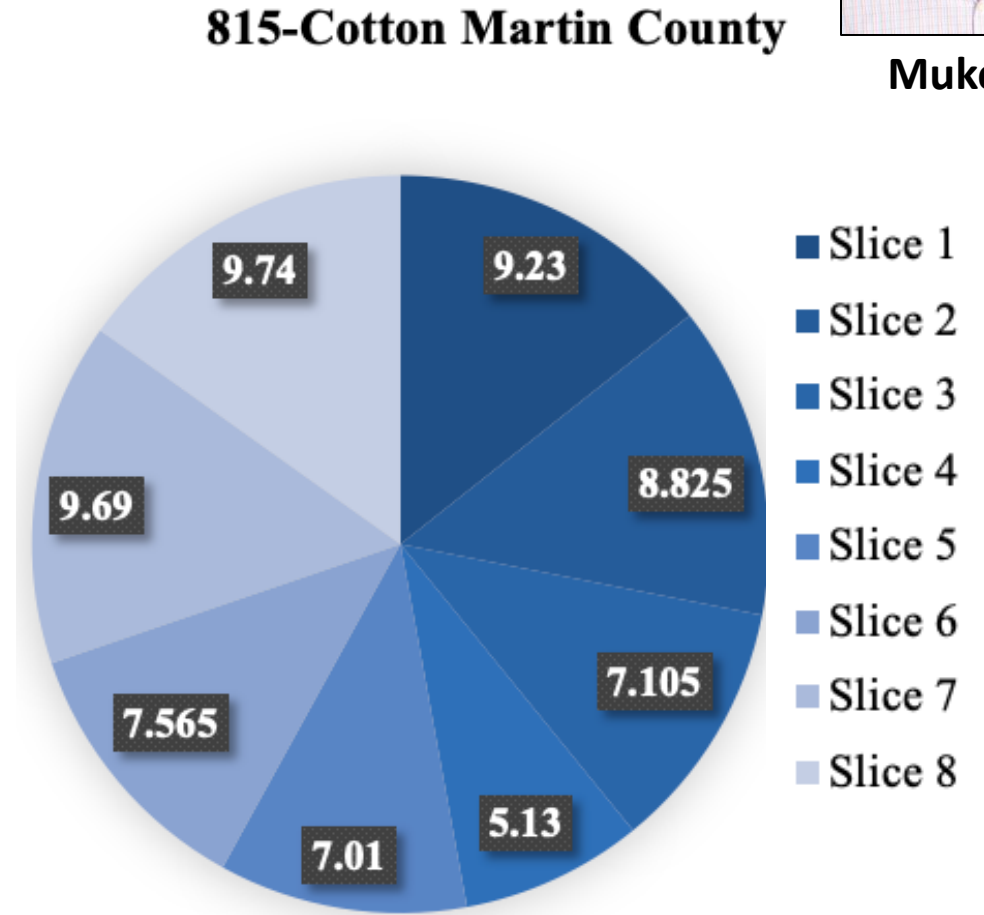
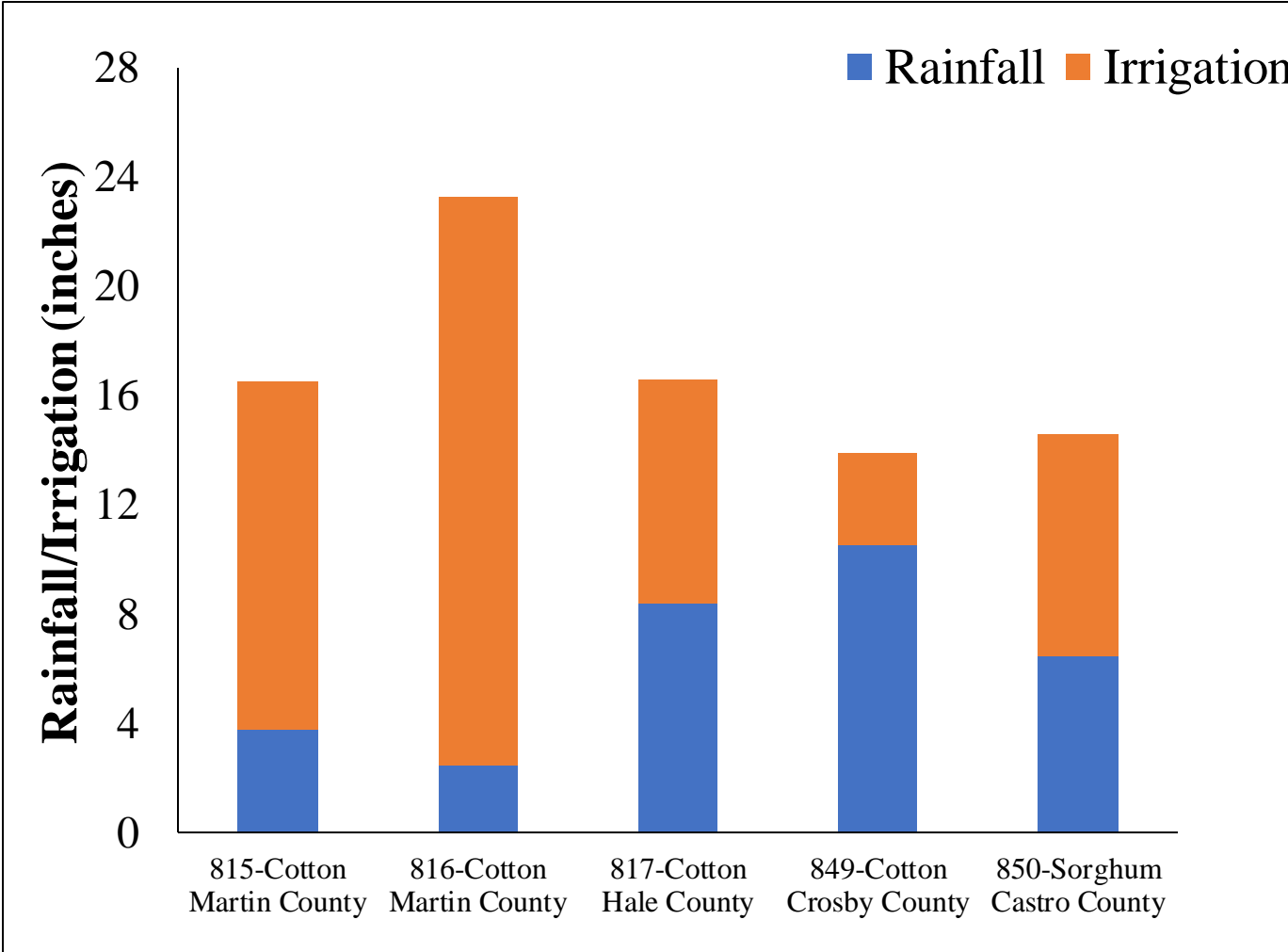
TAWC's Operational Landscape



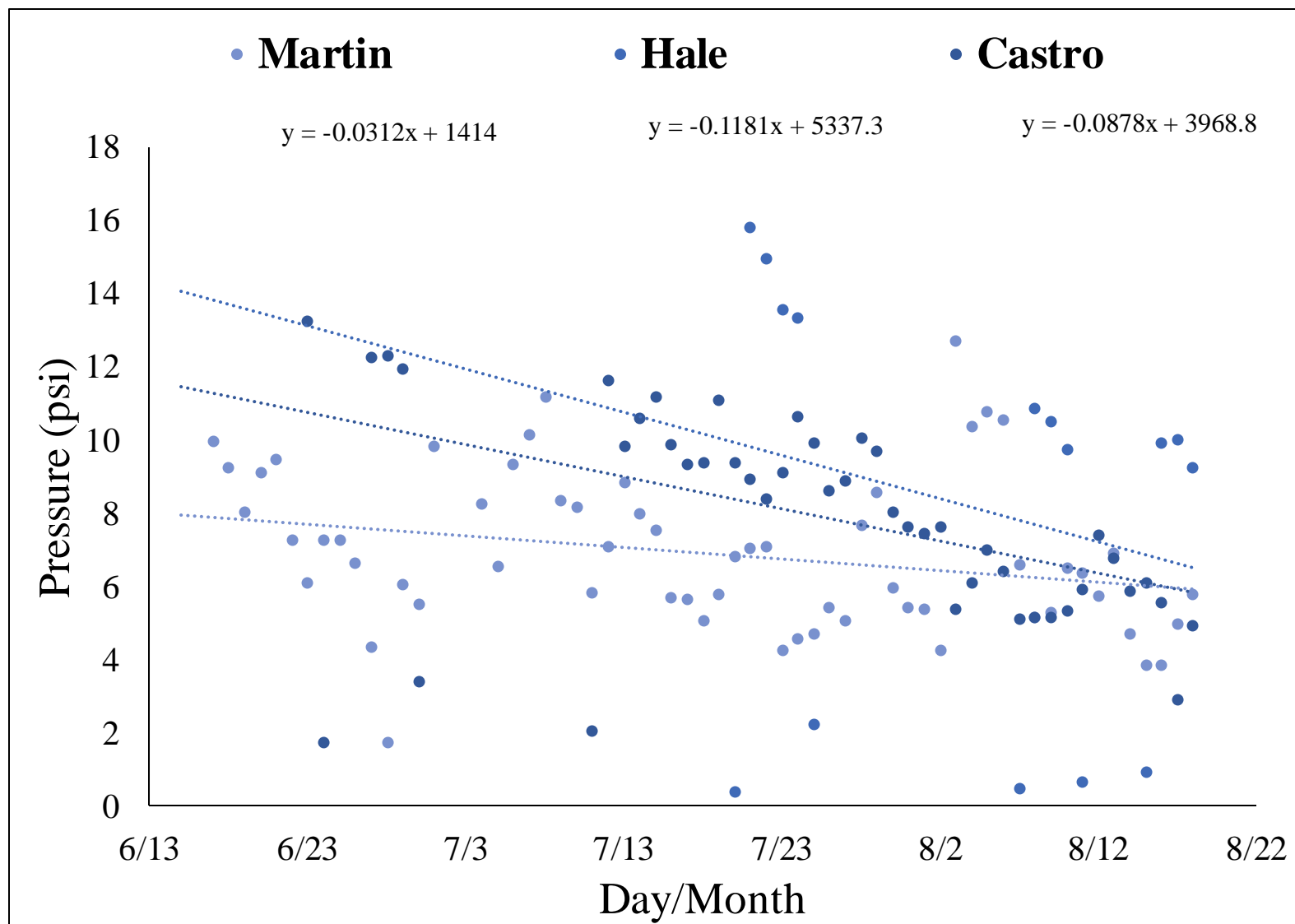
Need for Soil Moisture Sensors



Mukesh



Need for Soil Moisture Sensors



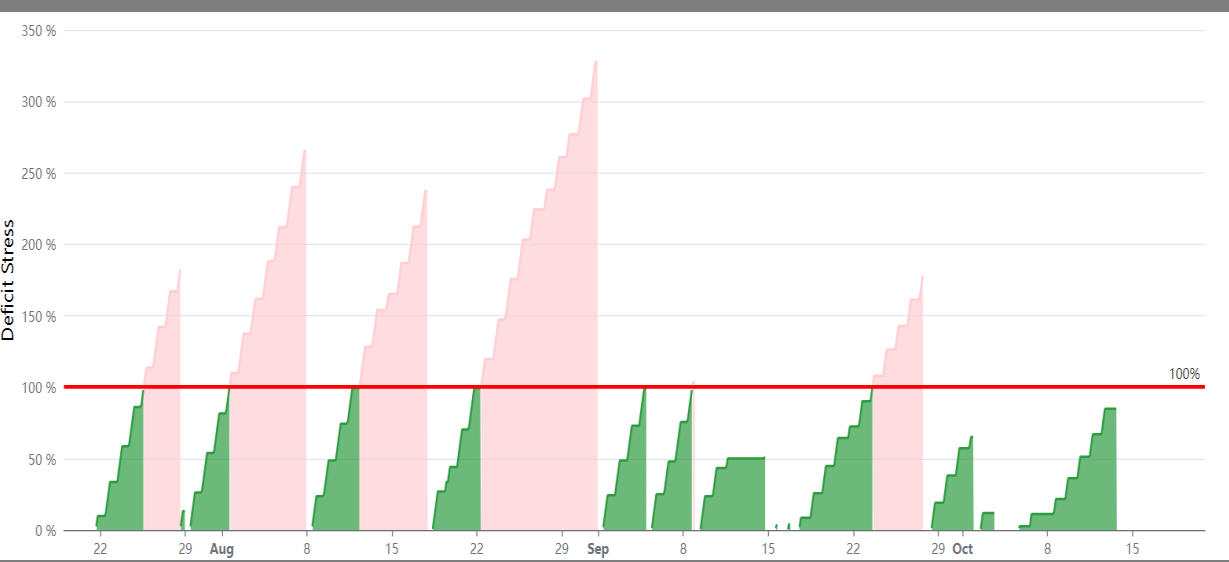
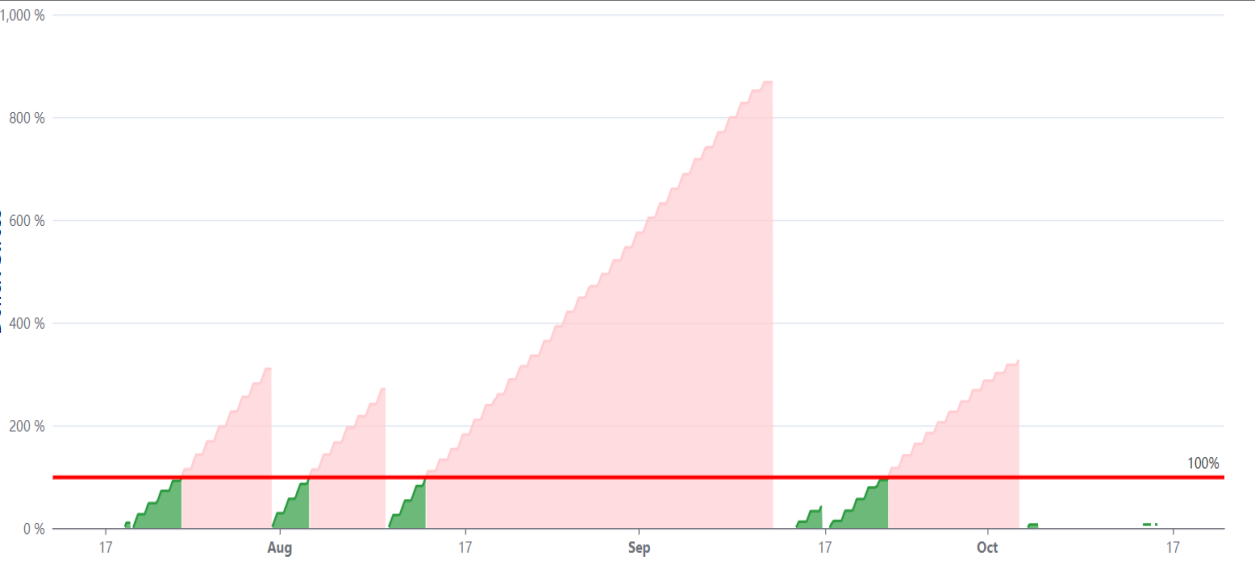
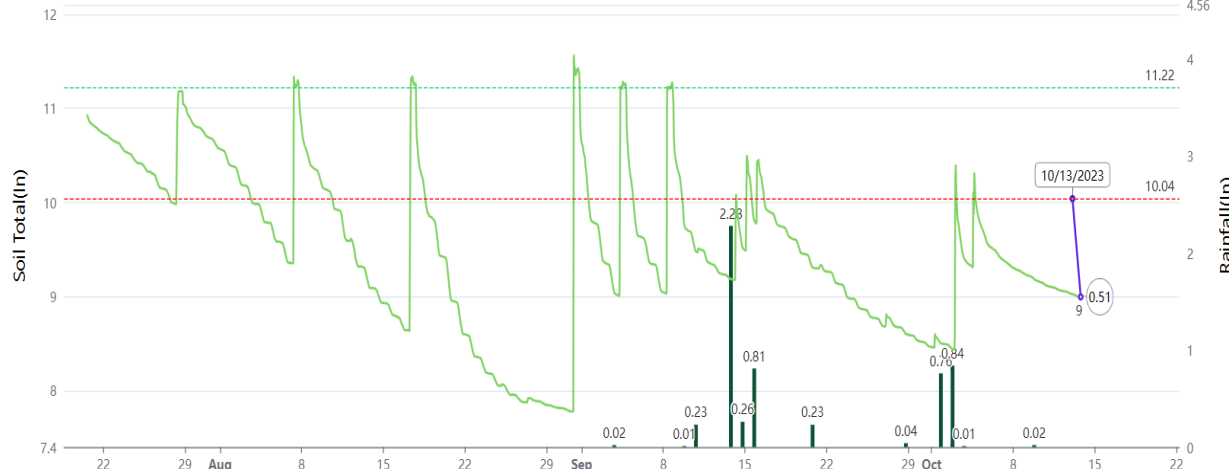
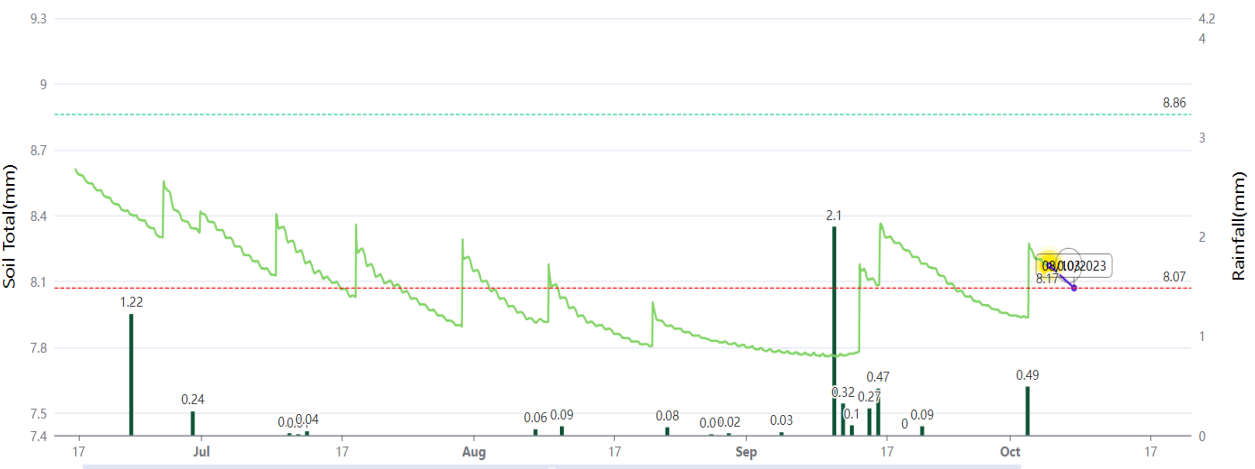
Decline in water pressure (0.03 to 0.11 psi/day) in pivots under cotton cultivation in three different counties of West Texas during summer 2023

Need for Soil Moisture Sensors



Cotton Pivot

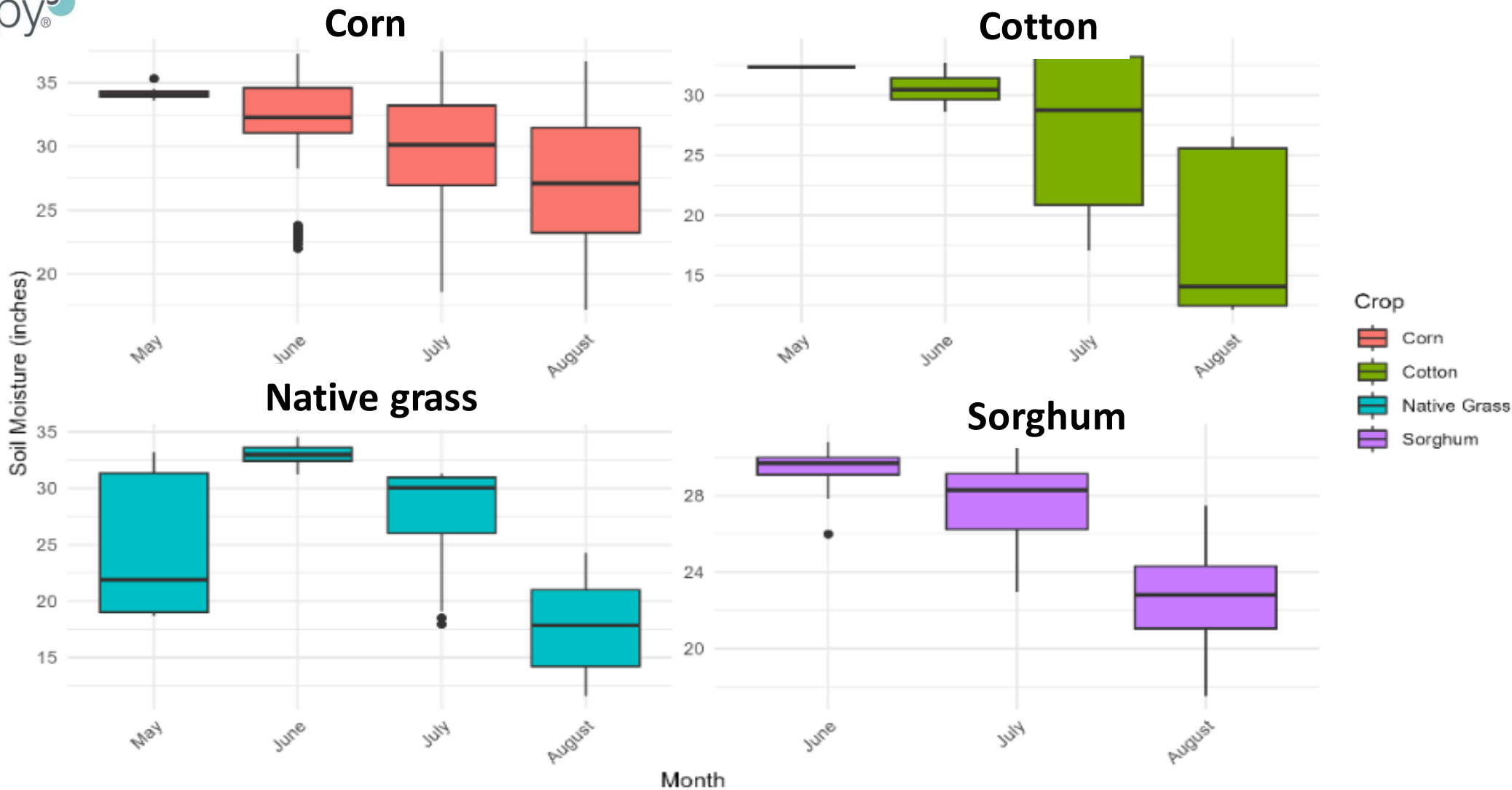
Cotton Drip



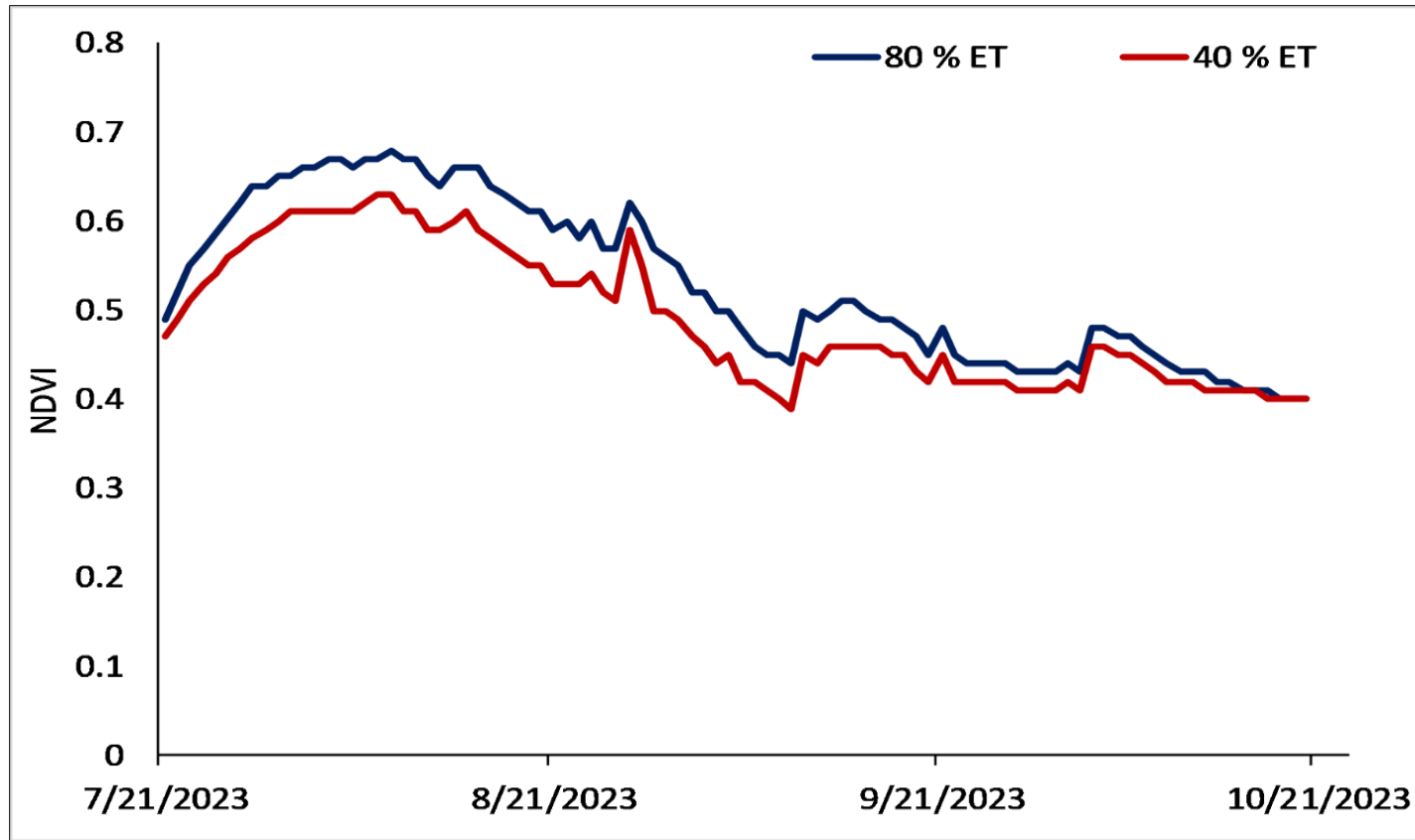
Need for Soil Moisture Sensors



Monthly Soil Moisture Balance Over the Season



Moisture & NDVI

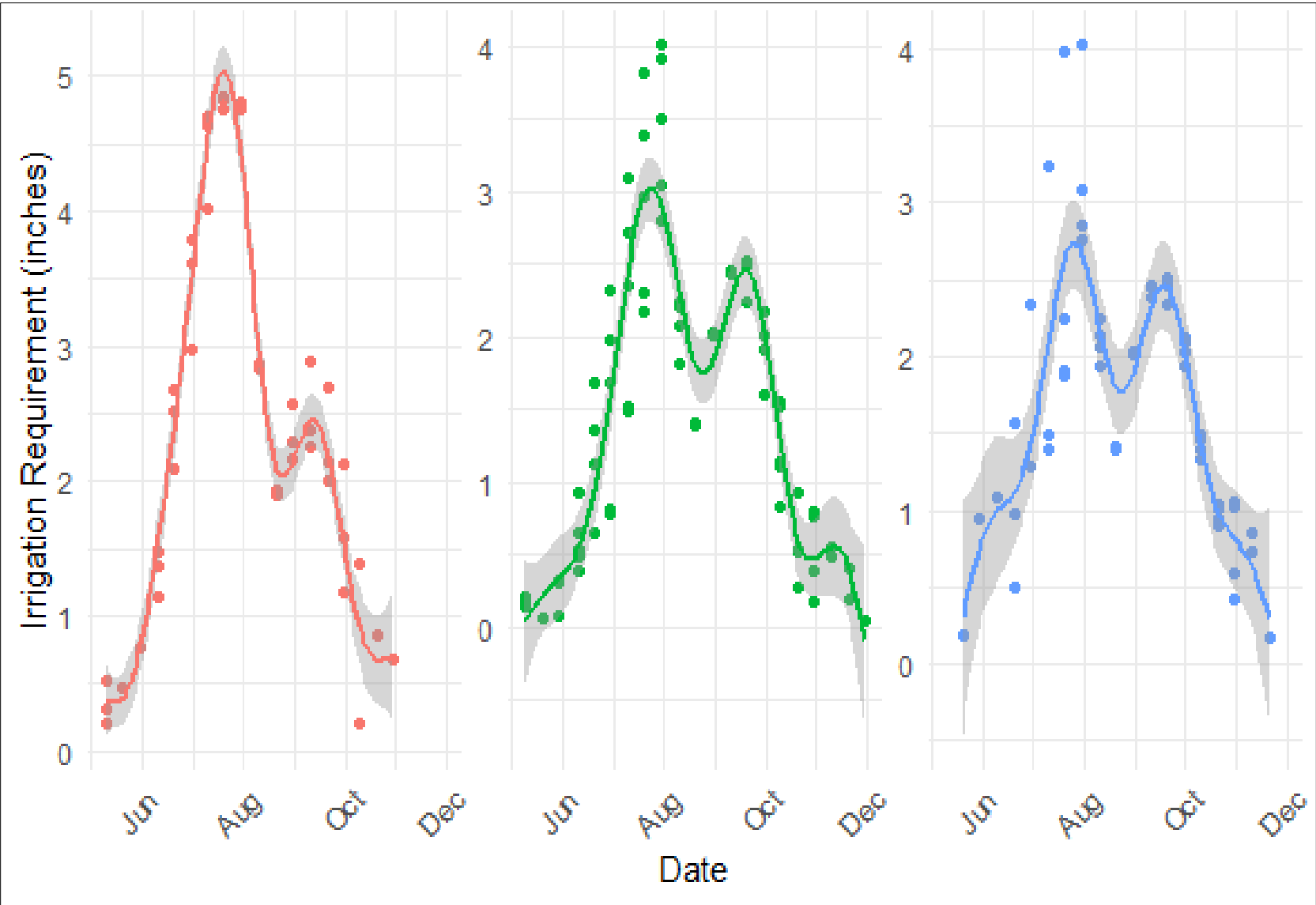


Across technologies
Increased testing
Continuous development
Feedback for improvement

Irrigation requirements at different TAWC demonstration sites calculated using FAO's CROPWAT

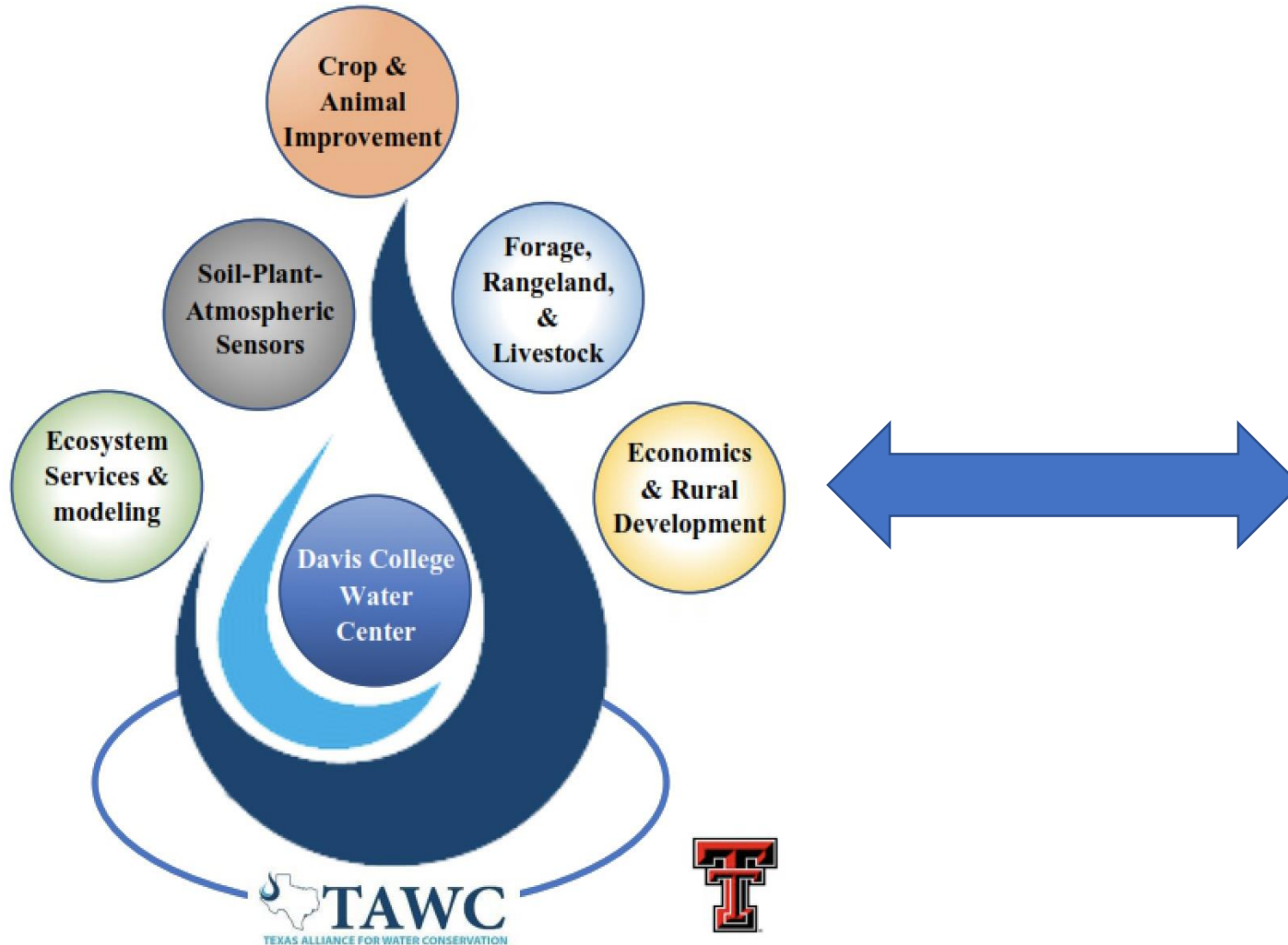


Mukesh



Exploring opportunities to save water during final stages of crop cycle

Davis College Water Center & TAWC



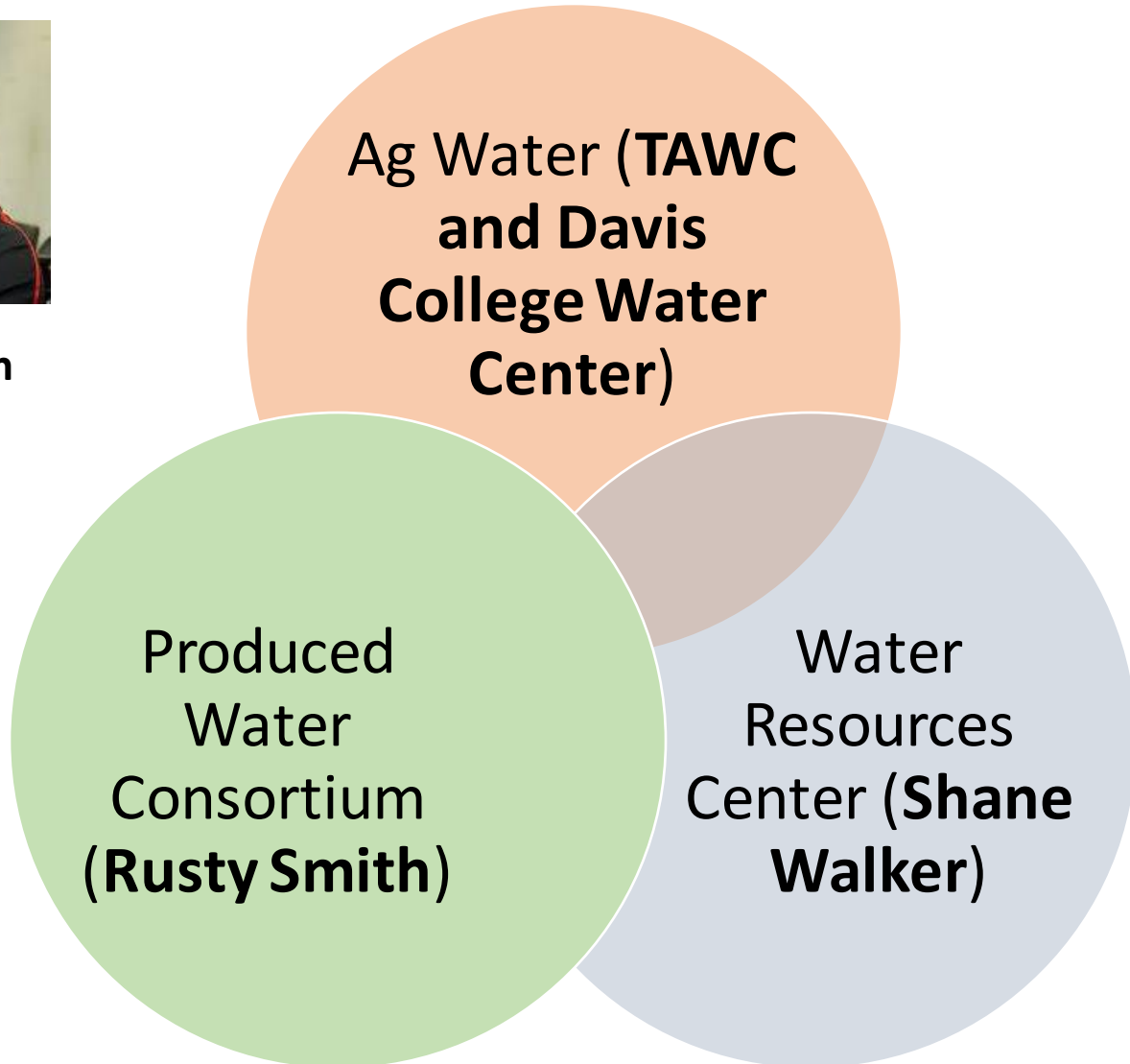
IMPACT through TAWC



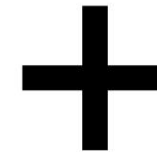
Coming Together of Water Centers at TTU



Dr. Darren
Hudson



Conserve Water



Welcome new water

Outreach and Technology Demonstrations



New Additions to Water College



TAWC
TEXAS ALLIANCE FOR WATER CONSERVATION

SUSTAINABLE AGRICULTURE PHOTO CONTEST

Show your photography skills & win cash prizes

CONTEST DEADLINE	WINNERS ANNOUNCED
JAN. 15	JAN. 24

Photos capturing the relationship between water, soil, plants, and livestock on the Texas High Plains.

File size: 1 to 6 MB

Please submit photos taken between Jan 1, 2023, to Jan 1, 2024.

Open to Everyone.
Max of 2 photo entries per person.

Winners will be announced & displayed at the 10th Annual Water College hosted by Texas Alliance for Water Conservation on January 24, 2024, at the Lubbock Memorial Civic Center in Lubbock, Texas.

GIVE US YOUR BEST SHOT!
SUBMIT ALL IMAGE FILES TO DR. KALA RAJAN, KRAJAN@TTU.EDU

CASH PRIZES
1ST - \$250
2ND - \$150
3RD - \$100

email photos to : krajan@ttu.edu

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WATER & AGRICULTURE POSTER CONTEST

TAWC
TEXAS ALLIANCE FOR WATER CONSERVATION

TAWC seeks submissions for Selected Poster Presentations for the 10th Annual Water College taking place on January 24, 2024, at the Lubbock Civic Center in Lubbock, Texas.

All students that enter will be able to display their poster at Water College. Top abstract in each category will present during the conference.

Open to all Texas Tech Davis College students. One entry per student.

Abstracts must relate to water use or conservation.
Categories: Row Crops, Livestock, Forages, Economics

Abstracts must be received by Wednesday, January 10, 2024, 11:59 PM CST.

Poster abstracts can follow the guidelines of your respective society annual meetings. Email abstracts to Dr. Krishna Jagadish at kjagadish.sv@ttu.edu.

SUBMISSION DEADLINE	PRESENTATION DATE
JAN. 10	JAN. 24

email abstracts to : kjagadish.sv@ttu.edu

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