Keys to

Agronomy

MAR '26

In this issue:

Every fourth Tuesday morning on KDHN, the AgriPlex report gives us a chance to visit about timely production topics. Recently, I shared a few thoughts on pre-plant irrigation, some of which sparked good conversation among producers. The question that kept coming up was simple: why are we applying such a limited and valuable resource so early in the season?

Responses from across the area suggested that pre-plant irrigation is often driven by tradition and personal preference. While those factors certainly play a role in agriculture, I wanted to dig deeper into the research and consult Extension specialists to better understand how irrigation timing impacts crop performance for cotton, corn, and sorghum in the Texas High Plains.

What We Know

There are a few fundamentals we can all agree on:

- Adequate moisture is essential for germination and stand establishment.
- Irrigation systems, whether center pivot or subsurface drip, require time to move water across a field.
- Pre-emergence herbicides and some fertilizers need moisture to activate.
- Irrigation capacity can fluctuate throughout the growing season.
- Subsurface drip systems can present challenges when trying to bring moisture up to the soil surface for germination.

Bordovsky, J.P.; Mustian, J.T.; Ritchie, G.L.; Lewis, K.L. Cotton irrigation timing with variable seasonal irrigation capacities in the Texas South Plains. Appl. Eng. Agric. 2015, 31, 883–897.

Bordovsky, J. P. (2020). Preplant and early-season cotton irrigation timing with deficit amounts using subsurface drip (SDI) systems in the Texas High Plains. Irrigation Science, 38(5), 485-499.

Results & Findings

Research conducted in the Texas High Plains provides important insight into how and when irrigation water is most effectively used. Studies led by Texas A&M AgriLife engineer James Bordovsky at Halfway indicate that pre-plant irrigation applied through center pivots can result in significant evaporative losses, especially under the environmental conditions typical of our region. While May and June often bring the majority of annual rainfall, they also coincide with peak evaporation rates, meaning a portion of early-applied irrigation water may never benefit the crop.

Multi-year research trials have shown that applying irrigation beyond what is necessary for germination results in only modest increases in yield and crop value. In some cases, particularly on heavier soils, limiting pre-plant and early-season irrigation in subsurface drip systems actually improved overall productivity, even under deficit irrigation conditions.

Contact Me!

Got an idea, question, or comment?

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Texas A&M AgriLife Extension

CROP WATER USE MATTERS

Efficient irrigation management starts with understanding crop water use. In the Texas High Plains, most producers are already operating under some level of deficit irrigation, meaning we cannot fully meet crop water demand throughout the season. That reality makes timing even more critical.

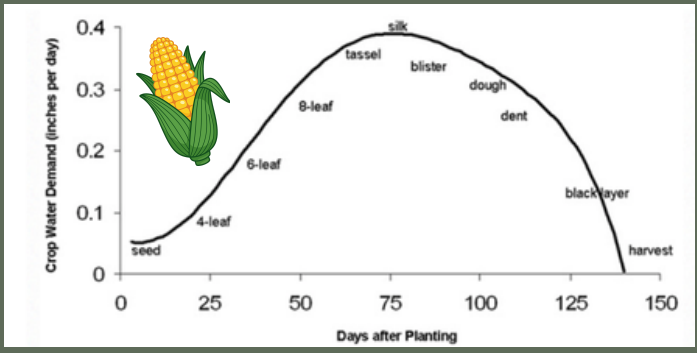
For crops like cotton, which are indeterminate, excessive early-season irrigation can promote unwanted vegetative growth. This often leads to increased use of plant growth regulators, an added input cost that may not translate into higher yields. Research consistently shows that water applied during mid- to late-season growth stages has a greater impact on yield and overall productivity.

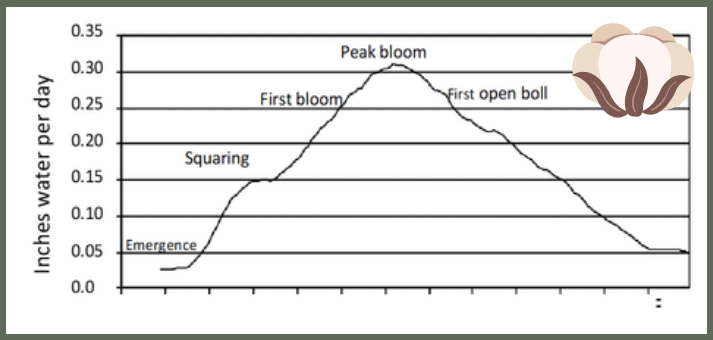
Corn and sorghum, while more determinate, also benefit from irrigation timing that aligns with key reproductive stages rather than heavy early-season applications.

Take-Home Message

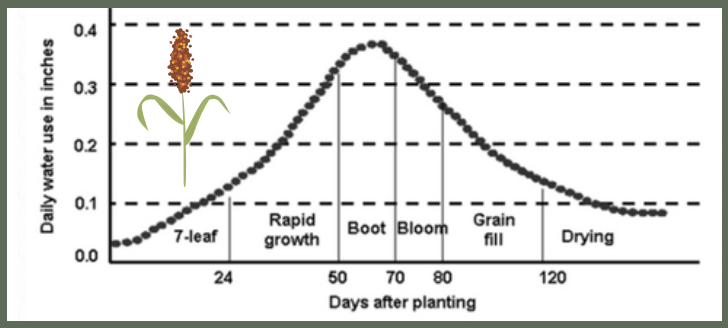
Pre-plant irrigation still has its place, particularly for ensuring uniform germination and activating inputs, but research suggests that more is not always better. In many cases, limiting early applications and conserving water for critical growth stages later in the season can improve water use efficiency and economic returns.

As irrigation costs rise and water resources remain limited, it may be worth reevaluating long-standing practices. By combining producer experience with research-based recommendations, we can make more informed decisions about when and how much to irrigate.





Images from Dr. Dana Porter



If you have thoughts or practices that have worked well on your operation, I'd still love to hear from you. These conversations help all of us make better, more informed management decisions moving forward.

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TEXAS A&M AGRILIFE EXTENSION

THE HOMEOWNERS HUB

Rainwater Capture

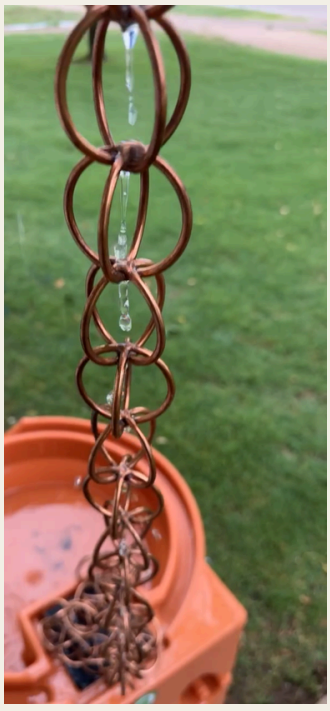
If you've lived on the Texas High Plains very long, you know how unpredictable our rainfall can be. We may go weeks or months without a meaningful rain, and then suddenly pick up several inches in a single storm. In our area, the majority of annual rainfall typically comes in May and June, and much of that water is lost before we ever put it to use.

That's where rainwater catchment can make a difference.

A general rule of thumb is that one inch of rain falling on a 2,000 square foot roof can yield around 1,000 gallons of water, assuming about 75–80% collection efficiency. When you think about a good May storm, that's a significant amount of water running off your roof and onto the ground, water that could be stored and used later in the summer.

And that timing matters. The same months when we tend to receive the most rainfall are also when lawns are greening up, gardens are being planted, and outdoor water use starts to increase. By July and August, when temperatures climb and rainfall becomes less reliable, stored rainwater can help bridge the gap and reduce reliance on groundwater or municipal supplies.

Another advantage of rainwater is its quality. Unlike some groundwater sources in our region, rainwater is typically low in salts and minerals, making it ideal for landscape plants, gardens, and even some household uses when properly managed. For homeowners trying to keep plants healthy through the heat of summer, that can be a real benefit.



Rainwater harvesting systems don't have to be complicated or expensive. For many homeowners, a simple setup using gutters and rain barrels is a good place to start. To the left is a picture of my personal rain barrel. Because I don't have gutters, we chose to add a rain chain to the area of the house with excessive roof runoff. The biggest limitation we see locally isn't how much rain we get, but how much storage capacity we have when those storms hit.

It's also worth remembering that very little of our rainfall actually makes it back into the aquifer. In some cases, only a small fraction contributes to recharge, meaning most of the water we receive is lost to runoff or evaporation. Capturing even a portion of that water at home is one way to make better use of a limited resource.

Rainwater harvesting isn't going to replace irrigation systems or solve our long-term water challenges. But it is a practical, scalable tool that homeowners can use to stretch available water supplies a little further. Whether it's a single barrel under a downspout or a larger storage system, every gallon captured is a gallon that doesn't have to be pumped later.

In a region where every inch of rain matters, taking advantage of those May and June storms is one small step that can make a noticeable difference by the end of summer.

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Texas A&M AgriLife Extension

VECTOR CLASSES

TEXAS A&M AGRILIFE EXTENSION

2026 VECTOR MANAGEMENT CEU PROGRAM

$50 Registration Fee Required

Pesticide CEU's Offered:

- 5 Agricultural
- 5 Structural
- 5 Animal Control CE's
- 5 Registered Sanitation
- 5 Code Enforcement

Lubbock, TX

May 5, 2026

8am - 3pm

Texas A&M AgriLife Research & Extension Center

1102 E FM 1294
Lubbock, TX 79403

azelis

GULF SOUTH VECTOR

TARGET SPECIALTY PRODUCTS

VESERIS

INFORMATION:

This is a recertification program that will educate personnel in cities and municipalities in the field of vector abatement on mosquitoes, ticks, flies, fleas & bugs, control tactics, trap usage, surveillance, virus testing, and vector borne diseases.

REGISTRATION REQUIRED

LUNCH PROVIDED

Registration is OPEN!
Aim your phone's camera at the QR code above for more information.

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TEXAS A&M AGRILIFE EXTENSION

SCOUT SCHOOL

South Plains Field Scout School

Texas A&M AgriLife Extension Center Lubbock

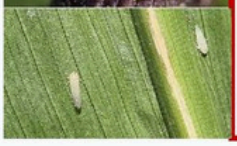
May 29, 2026

TPMA Texas Pest Management Association
PO Box 16523, Lubbock, Texas 79490

3 TDA CEUs





8:30-9:00 am. **Registration**

9:00-10:15 am. **Cotton Agronomy & Pest**

Dr. Suhas Vyavhare, Dr. Ken Lege, Blayne Reed

10:15-10:40 am. **Break / Hands on Cotton Plant Mapping**

High Plains IPM Team

10:40-12:00 pm. **Corn and Sorghum Agronomy & Pest**

Blayne Reed, Dr. Tyler Gilreath

12:00-1:10 pm. **Lunch (on your own)**

1:10-1:45 pm. **Scouting for Plant Diseases**

Dr. Ken Obasa

1:45 – 2:10 pm. **Weed, Herbicide Damage, & Deficiency Scouting**

John Thobe

2:10-2:25 pm **Break / Hands on Cotton Plant Mapping**

High Plains IPM Team

2:25-2:45 pm. **Beneficial Arthropod ID**

Dr. Suhas Vyavhare

2:45- 3:15 pm. **Peanut Scouting 101**

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The Texas A&M AgriLife Extension High Plains IPM Team

Blayne Reed, Program Specialist III-IPM Mid-High Plains & Upper Rolling Plains / John Thobe, Program Specialist I—IPM West Plains / Dr. Suhas Vyavhe, Extension Entomologist – Lubbock / Dr. Tyler Gilreath, District Entomologist-Amarillo / Keegan McCollum, Program Specialist I—IPM, Sandy Lands IPM / Dr. Ken Obasa, Pathologist-Amarillo / Dr. Ken Lege, Cotton Agronomist-Lubbock

USDA NIFA
United States Department of Agriculture
National Institute of Food and Agriculture

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TEXAS A&M AGRILIFE EXTENSION

AUXIN/PESTICIDE TRAININGS

2026 YEARLY TRAININGS

AUXIN

1 L&R

$10

- LAMB COUNTY - ~~JAN 26~~ Jan 29 @ 12PM Reschedule
- CASTRO COUNTY - FEB 18 @ 9AM
- HALE COUNTY - ~~MAR 24~~ March 25 @ 11AM

PRIVATE APPLICATOR

3.5 hours
Includes training, study materials, and spray log

$100

- LAMB COUNTY - FEB 5 @ 8AM
- HALE COUNTY - ~~MAR 24~~ March 25 @ 1PM
- CASTRO COUNTY - APR 10 @ 9AM

PARAQUAT

FREE

- REQUIRED EVERY 3 YEARS
- TAKEN INDIVIDUALLY ONLINE

RSVP TODAY!!

TEXAS A&M AGRILIFE EXTENSION

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TEXAS A&M AGRILIFE EXTENSION

Save the Date

April 10: Private Applicator Training (Dimmitt)

April 17: Plains Cotton Growers Meeting (Lubbock)

April 24: Field Scout School (Canyon)

April 29: Small Grains Tour (Plainview)

May 8: Plains Cotton Growers Meeting (Lubbock)

May 29: Field Scout School (Lubbock)

July 1-2: Soils Camp (Olton)

July 2: Soil Stewards (Olton)

July 7-9: Water Well Quality Testing (all counties)

July 23: Rainwater Harvesting (Littlefield)

July 30: Bamert Tour (Muleshoe)

Stay tuned to social media and newsletters for more events

https://agrilifeextension.tamu.edu/counties/castro/

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