# Keys to FEB '24

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### MEET THE SPECIALIST Ken Lege Assistant Professor &

#### Extension Cotton Specialist

New to AgriLife Extension but not new to cotton, Dr. Ken Lege brings 37 years of knowledge to this new position. Originally wanting to be a high school ag teacher, Ken changed his major to horticulture/crop science at Sam Houston State University after taking a crop science and botany course. After receiving his B.S., Ken began his journey into the cotton world by taking a graduate assistantship position at Texas A&M University eventually earning his M.S. in Plant Breeding and a Ph.D. in Agronomy. Dr. Lege started his career as an Extension Associate with the water quality program at Texas Agricultural Extension Service, then to Clemson University as the state Extension Cotton Specialist which led him to the industry/seed business. Ken has been proud that he has been able to embrace new opportunities throughout his career, changing from academic to industry, and now back to academic all of which has given him many experiences in the area of cotton. Dr. Lege is so passionate about cotton that he often wakes in the middle of the night thinking about upcoming projects, how to measure something differently, and how to communicate what we've learned.

Being fairly new, Ken is currently meeting with a great team of scientists to collaborate on projects that will enhance or supplement what is being done already. His research interests include how to best use the available water and its interactions with water, including fertility, diseases, nematodes, varieties, and more. Dr. Lege says it's hard to top new technologies like boll weevil eradication, Bt genes, herbicide-tolerant genes, and native traits but thinks the next "big thing" would be related to the digital platform and how they enable growers to decide and apply inputs precisely. A lot of "good old fashioned" agronomy needs to be done with research on row spacing and the yield and fiber qualities of that system, water efficiency to create profitable growers and a new buzzword, biostimulants.

Outside of work, you might find Ken playing music (classic country and traditional gospel), singing, playing guitar, recording in his home studio, and playing at church and other local venues. He and his wife also like to lake kayak and whitewater raft. You'll also quickly learn that Dr. Lege is cotton's biggest advocate. He wears, lives, and thinks cotton all the time. If he can advise those in the industry concerned about the market, it is to wear 100% cotton clothing and demand it from your clothing retailers. His favorite analogy is: have you ever been to an Independent Cattlemen's Association banquet where they served chicken? Of course not! They serve steak because they support their own industry and we should do the same thing in the cotton world.

Contact Me!

Got an idea, question, or comment?



# **TIMING OF IRRIGATION: COTTON**

Cotton is a relatively drought-tolerant and salt-tolerant crop that generally responds well to irrigation. Cotton water demand is typically 24-28 inches in a growing season. According to the National Weather Service in Lubbock, the average rainfall for the last 10 years is about 18 inches, with the majority of that rain falling in the months of May, July, and September. Irrigation can supplement the rainfall during the growing season; timing is critical to initiate, retain, and mature bolls. Water expands the cells within the plant contributing to plant growth. Excessive water deficiency or drought stress at critical growth stages can negatively impact yield considerably, causing the growing cells to shrink. On the flip side, too much irrigation can encourage excessive vegetative growth.



### Planting - Emergence • low water use requirement

- water needed for germination and stand establishment



#### **Emergence - First Square**

- ~0.1 inches of water per day
- irrigation at this time has little effect on yield unless extreme soil water deficit
- a slight water deficit can encourage root growth



#### **First Square - First Flower**

- 0.1 0.2 inches of water per day
- avoid water deficit stress 21 days from the first square to first bloom
- fruiting sites are determined
- increase of phosphorus and potassium from the soil



### First Flower - Peak Bloom

- 0.2 0.28 inches of water per day
- water stress during this time reduces plant growth and fruiting site initiation
- severe water stress will likely shed young bolls and reduce fiber quality through shorter staple and higher micronaire



### Peak Bloom - Open Bolls

- decreasing from 0.28 inches of water per day
- water deficit is less critical during square and early flowering
- fiber length and micronaire in young bolls can be affected by water stress



### **Boll Opening**

- plants should become water-stressed to allow for better harvest conditions
- water deficit hastens boll opening, makes defoliation easier, and reduces growth Much of this information came from cottoninc.com

Contact Me! Got an idea, question, or comment?



# WE NEED YOU, CASTRO COUNTY!!!

### A GRILIFE



### TEXAS COMMUNITY FUTURE FORUM

LET YOUR VOICE BE HEARD!!

WE NEED OUR COMMUNITY TO HELP US LOOK TOWARD THE FUTURE!

### Monday, March 4

5pm-6pm West Texas Coffee, Dimmitt

Assist Castro County AgriLife Extension Agents identify community wide issues.

We believe you are a vital leader in our community and would love to have you attend this forum. Think about issues facing our community in the areas of

- Agriculture and Natural Resources
- Families and Health
- Youth

 Community Development and be ready to share them at this event.
 We know your time is valuable so we plan to keep this event to one hour.

If you cannot attend please feel free to email us your issues and ideas at fracker@ag.tamu.edu or call the extension office.

For more information call or come by the Extension Office: 806-647-4115

#### Contact Me!

Got an idea, question, or comment?



# SOIL SAMPLING PROGRAM

#### TEXAS A&M GRILIFE EXTENSION

### Annual Soil Sampling

\$45 per submitted sample

- composite or zone sampling
- field, garden, turf
- 0-24 inch sampling depth
  - pending soil conditions
  - hydraulic soil sampler
  - 0-6 & 6-12 most common
- interpretation of results

Nitrate-nitrogen, Phosphorus, Potassium, Sulfur, Calcium, Magnesium, Sodium, Zinc, Iron, Manganese, Copper, Organic matter, Soil pH, Buffer pH, Soluble salts, Cation exchange capacity, Base saturation %, Boron

Texas A&M AgriLife Extension Service is an equal-opportunity employer and program provider.



### When's the last time you sampled your soil?

Plants need 16 essential nutrients to grow, most coming from the soil. Reduce your fertilizer cost by crediting what is already in your soil and identify nutrients that are lacking by a simple soil test. If you grew corn in 2023 and plan on going back to cotton in 2024, there likely is nitrogen available for this years crop. Deeper soil sampling is preferred in this type of situation.

#### Contact Me!

Got an idea, question, or comment?



### AG MASTERMINDS



RSVP not required but encouraged! Contact Kristie Keys at 325-665-8790.

APRIL

Contact Me! Got an id<u>ea, question, or</u>

comment?

Kristie Keys kristie.keys@ag.tamu.edu 325-665-8790



RSVP not required but encouraged! Contact Kristie Keys at 325-665-8790.

# **OTHER PROGRAMS**



### Private Applicator Training

FEB 1 @ HALE CO 8:30 AM
 FEB 21 @ LAMB CO 8:30 AM
 MARCH 8 @ CASTRO CO 1 PM

RSVP to Kristie Keys at (325) 665-8790 for more information

Each training is held at the respective Extension office

Educational programs of the Texas A&M AgriLife Extension Service are open to all people without regard to race, color, religion, sex, national origin, age, disability, genetic information or veteran status. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas

If you are interested in obtaining your private pesticide license and need the training, please contact me. If the March 8 date does not work for you, we can set up another training time. I do not provide the testing at the training. You must go through PSI Exams after receiving a unique number from TDA, after completing the training. Interested in commercial applicator license? I can assist in ordering your study material.

#### Contact Me!

Got an idea, question, or comment?

Kristie Keys kristie.keys@ag.tamu.edu 325-665-8790

\$100 FEE

Training is approximately

Includes study material &

3.5 hours

spray log



### **OTHER PROGRAMS**



#### TEXAS A&M GRILIFE EXTENSION

### Abilene, TX

April 19, 2024 8am - 3pm

#### Taylor County Extension Office

1982 Lytle Way Abilene, TX 79602

#### 2024 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

#### **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 mosquito control.

REGISTRATION REQUIRED

LUNCH PROVIDED



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

SOUTH

#### Contact Me!

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Got an idea, question, or comment?





March 4- Castro County TCFF (info included in newsletter) March 8- Ag Mastermind- Tree Disease & Pest ID (Plainview) March 8- Applicator Training (Castro Co Extension Office) March 20- Profitability Workshop (Castro Co Extension Office) March 22- NRCS Tree Program (Sudan) April 2- PCG Annual Meeting (Lubbock) April 4- Ag Mastermind- Innoculents/Legume Crops (Olton) April 4- Lamb TCFF (more info coming soon) April 11- Profitability Workshop (Hale Co Extension Office) April 12- Ag Mastermind - Silage (Castro Co) April 16- Hale County TCFF (more info coming soon) May 7- Winter Pea Field Day (Castro Co) May 17- Wheat Field Day (Hale Co)

\*\*Stay tuned to social media and newsletters for more events\*\*



https://castro.agrilife.org/agronomy/



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