



K-STATE
Research and Extension

Extension Agronomy

eUpdate

02/12/2026

These e-Updates are a regular weekly item from K-State Extension Agronomy and Kathy Gehl, Agronomy eUpdate Editor. All of the Research and Extension faculty in Agronomy will be involved as sources from time to time. If you have any questions or suggestions for topics you'd like to have us address in this weekly update, contact Kathy Gehl, 785-532-3354 kgehl@ksu.edu, or Dalas Peterson, Extension Agronomy State Leader and Weed Management Specialist 785-532-0405 dpeterso@ksu.edu.

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1. EPA Approves Dicamba Over-the-Top Applications Through 2027

On February 6, the EPA announced the approval of over-the-top applications of some dicamba-containing herbicides for two years (2026-2027). The three products affected by this announcement are Stryax (Bayer CropScience), Engenia (BASF), and Tavium (Syngenta). The 2026 labels will expire on February 6, 2028. Some key points from the labels are listed below.

- **Restricted Use Pesticide designation:** Only certified applicators with dicamba-specific training can make applications.
- **Mandatory record keeping:** Keep detailed records of every application to show that all label requirements were followed.
- **Mandatory conservation practices:** All applications require 3 [runoff mitigation points](#). Some pesticide use limitation areas (PULAs) will require 6 points. The [Pesticide App for Label Mitigations](#) (PALM) can be used to determine the number of mitigation points for a field.
- Information pertaining to applications in PULAs can be found on the [Bulletins Live Two website](#) within six months prior to the applications.
- **Buffer Zones:** A 240 ft downwind drift buffer is required for all applications. This buffer distance can be reduced by using practices listed on the [Mitigation Menu website](#).
- **Proximity restrictions:** Applications are not allowed if sensitive plants are planted on an adjacent downwind field or area.
- **Mandatory Drift Reduction Agent (DRA):** An oil emulsion drift reducing agent (DRA) must be used in every application at 0.3% volume-to-volume and a minimum spray volume of 15 gallons/acre.
- **Doubled volatility reduction agents:** All applications include a mandatory use of 40/oz per acre of approved volatility reducing agent (VRA). Qualified VRAs will be listed for each herbicide on their product website listed on the label.
- **Maximum application rate cut in half:** A maximum of 0.5 lbs ae/A can be applied per application. Up to two applications may be made per year.
- **Aerial application prohibition:** Aerial application is strictly prohibited, including applications with unmanned aerial systems (UAS)
- **Application timing restrictions:**
 - Do not apply in an inversion.
 - Do not apply if rain is expected within 4 hours, if it is raining, or if the soil is saturated.
 - Applications must be made between 1 hour after sunrise and 2 hours before sunset.
 - Herbicides may not be applied after R1 soybean or after 7 days before cotton harvest
- **Tank mixing prohibition:** Don't include AMS in applications
- **Droplet size requirements:** Only approved nozzles with droplet size of coarse or larger may be used.
- **Spray Height:** Maximum boom height is 24 inches above the target pest or crop canopy.
- **Wind Speed requirements:** Wind speed must be between 3 and 10 MPH at boom height
- **Ground Speed:** Ground speed must be 15 MPH or less
- Check <http://www.weather.gov> to determine the temperature for the day of application and the day after application.
- **Temperature-based application limits:** Do not apply if forecasted temperatures are greater than 95°F on the day of or the day after the application. Additionally, when temperatures are 85-95°F, applicators can only treat 50 % of their dicamba-tolerant acres in a county.
- **Additional restrictions:** Users must check each herbicide's website listed on the label no more than 7 days before the application and comply with any additional restrictions that are

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2. Frost-seeding legumes into established cool-season forages

Numerous benefits are associated with adding legumes to established tame stands. Some of these benefits include nitrogen (N) fixation with establishment to reduce N needs by grasses, strengthen the grazing system for livestock, and tend to increase palatability and forage quality compared to monoculture grass stands. Adding legumes to tall fescue can reduce fescue toxicosis. Adding another species to an established grass stand may sound complicated, but it can often be beneficial for the entire forage system in the long run when the correct steps are taken.

What is frost seeding?

No-till seeding, minimum tillage, and frost seeding are all techniques used to introduce or reintroduce clovers into grass stands. Frost-seeding, as the name suggests, requires minimal equipment and is among the simplest options. Frost-seeding is accomplished by broadcasting legume seed onto the existing field of grass from late winter into early spring and allowing freeze-thaw cycles to incorporate the seeds into the soil. For most of Kansas, this would be the mid-February through mid-March time frame, accounting for the temperature gradient across the state. Due to seed costs, this practice should be done with favorable establishment moisture, limited insect populations, and short pasture/forage stubble to minimize grass competition.

The longevity of legumes in a stand depends on establishment success, soil fertility, grazing/haying pressure, and grass and weed competition. Research from other universities has noted two to four years as an average, while some stands last for far longer, and others never establish.

Choosing a legume for frost seeding

Overall, the most successful species for frost seeding are crimson, red, and white/ladino clovers. Birdsfoot trefoil, chicory, annual, and Korean lespedeza have mixed results with this practice and often have limitations in seed availability and stand longevity, making the investment potentially less favorable. This practice is not recommended for alfalfa.

Factors to consider when frost-seeding a legume

Soil fertility: Clovers need a pH of 6.5 to 7, and adequate levels of plant-available P and K. Overapplication of N will support grass production. Soil sampling is critical.

Variety: If available, choosing a known variety (not VNS “variety not stated”) with known performance and genetics will increase hay tonnage, improve forage quality, and improve stand life.

Seed treatment: Make sure the seed has been inoculated with the correct rhizobia, especially in fields that have not had the legume you are planting in recent history. Remember that a standard soybean inoculum will not work for clovers.

Seed per square foot: Make sure there is enough seed being broadcast with seeding rates of 6 to 8 pounds for crimson and red clover and 3 to 4 pounds per acre for white/ladino clover. If mixing the red and white clover when seeding, apply the minimum seeding rate of red clover (6 lb./A) mixed with 1 lb./A of white/ladino clover.

Seed-to-soil contact: Seed needs to land on bare soil and be worked into the top ¼ inch by rain, snow, and/or freeze-thawing. When broadcasting, the driving factor behind frost-seeding failure is too much forage ground cover, so the current forage height needs to be considered. A corrugated roller can be used to push seed into the soil, while livestock traffic or dragging a chain harrow can ensure seeds fall through the grass thatch later if excessive.

Weed management: Until clovers are well established, many broadleaf herbicides will kill out the clover. This means weed control should be done before establishing covers. Once clovers are well established, some herbicide products for broadleaf control are considered clover safe. Always check the herbicide label before an application.

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3. Kansas Crop Planting Guide – Updated for 2026

Kansas State University Extension has released a newly updated version of the [Kansas Crop Planting Guide \(L818\)](#), providing producers with comprehensive, research-based recommendations for planting dates, seeding rates, and plant populations for major crops across Kansas. The January 2026 revision reflects updated climate trends, expanded crop tables, and refined management guidance that supports informed decision-making for both dryland and irrigated systems.

Why This Update Matters

Kansas producers operate across one of the most climatically diverse agricultural regions in the U.S. Climatic gradients directly influence optimal planting windows, crop maturity selection, and seeding rate decisions. The updated guide incorporates the latest 1991–2020 climate normals and revises planting zones to more accurately reflect these shifts.

Key Sections in the Updated Publication

- **Planting Dates:** Updated planting windows for major crops across four statewide zones (Figure 1), reflecting 1991–2020 climate patterns and soil temperature-based decision guidance.

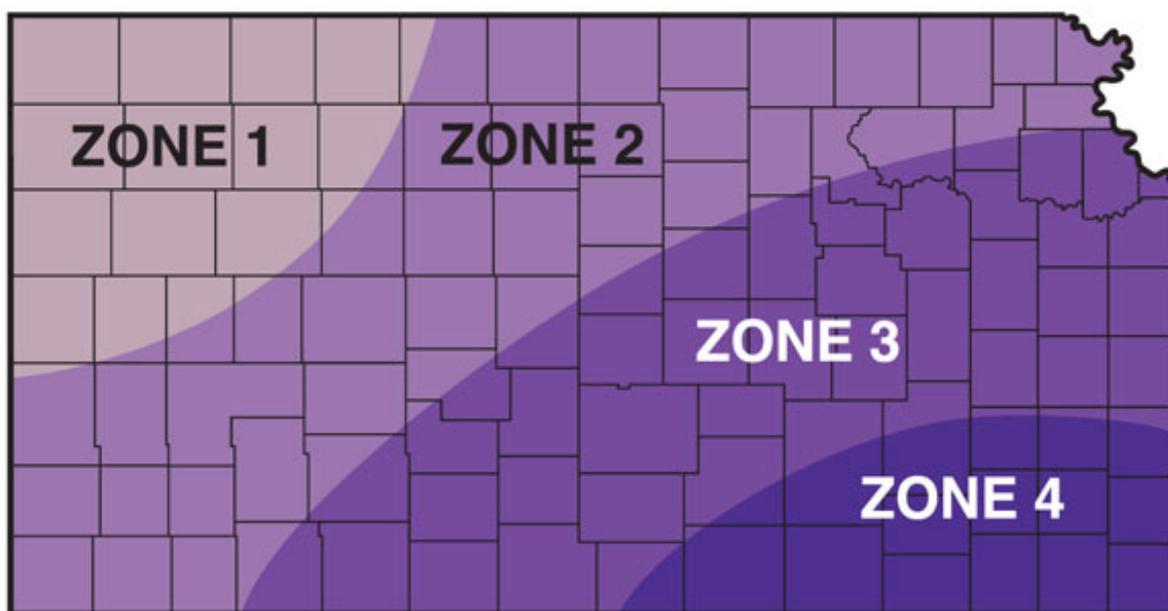


Figure 1. Kansas planting date zones updated with the most recent climate normals (1991-2020). Map from K-State Extension.

- **Planting Populations:** Recommended target populations for low, medium, high yield, and irrigated environments, including adjustments for late-planted wheat and sorghum and considerations for pure live seed (PLS).
- **Plant & Seed Spacing:** Tables and formulas for calculating seeds per foot of row, in-row spacing, and 1/1,000-acre row lengths to support accurate planter calibration and stand assessments.

- **Seeded Population Conversions:** Pounds to seeds per acre conversion charts based on seed size to improve drill calibration and seeding accuracy across small and large seeded species.
- **Seeds Per Pound & Bushel Standards:** Reference table listing seeds per pound, standard bushel weights, and standard moisture for more than 20 common crops and forage species.
- **Forages & Cover Crops:** Recommended planting windows and seeding rates for alfalfa, grasses, millets, small grains, and other forage species, plus links to cover crop planning tools.

The full Kansas Crop Planting Guide (L818) is available for free download at https://bookstore.ksre.ksu.edu/item/kansas-crop-planting-guide_L818

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4. Is the 2025-2026 winter over for Kansas?

That is the question I get almost daily this time of year. We have emerged from the “deep freeze” of up to 110 consecutive hours below freezing in late January, and now temperatures have rebounded well above normal. This has been welcomed by some, especially those who are calving. However, there is still a need for cold as we enter late winter to keep vegetation dormant and reduce pest numbers.

Current Conditions

The overall winter pattern has been heavily influenced by La Niña conditions (cooler-than-normal water in the equatorial Pacific Ocean region known as the El Niño Southern Oscillation, ENSO) and its typical influence on the US. This results in a northwest-to-southeast-oriented jet stream across the central US (Figure 1), dividing the region into northeast cooler/wetter conditions and west warmer/drier conditions. This leaves Kansas in the “battleground” of these conditions as the jet stream fluctuates back and forth. There have been other impacts on the current and forecasted patterns. However, for simplicity, we will focus on the ENSO here.

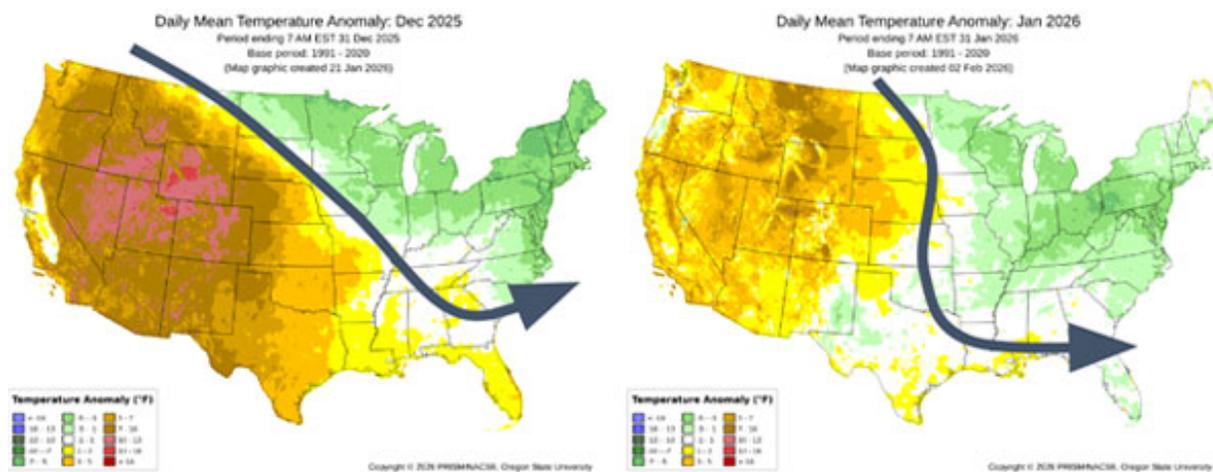


Figure 1. Monthly temperature anomalies for December 2025 (left) and January 2026 (right), and the prevailing jet stream for each month annotated. Source for images is PRISM (<https://prism.oregonstate.edu/comparisons/anomalies.php>) with annotations by Chip Redmond, K-State Extension.

False Spring

Everyone is bracing for it - like January, will the door slam shut on us with cold and snow again before we enter true spring? A transition in the weather pattern suggests the worst winter conditions are likely behind us. Sub-surface warmer water has been pushing eastward underneath those colder equatorial Pacific sea surface temperatures. This is the writing on the wall for the end of La Niña, with

already moderating sea temperatures, with models projecting at least neutral to perhaps El Niño by early summer (Figure 2). Historically, when La Niña ends in the spring months, an active central US pattern typically emerges. This reduces the staying power of any cold air with frequent oscillations between warm/cold. Models seem to already be trending towards a “more active” pattern with increasing storm events as we transition towards mid-to-late February.

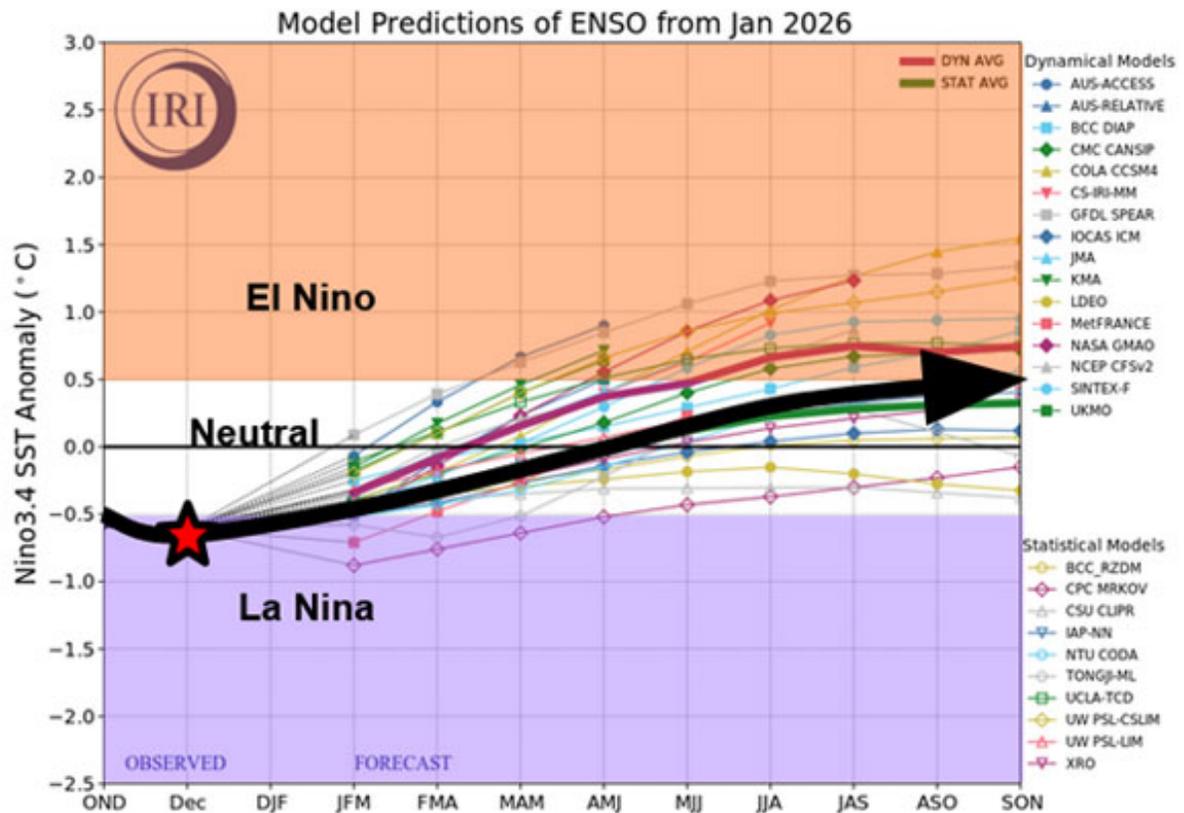


Figure 2. Current analysis (star) and overall projection of the El Niño Southern Oscillation for the coming months (black arrow). Data from IRI (<https://iri.columbia.edu/our-expertise/climate/forecasts/enso/current/>) annotated and edited by Chip Redmond, K-State Extension.

Fire First

An active pattern can be a relative term that, unfortunately, doesn't always imply more moisture. In a waning La Niña, the pattern tracks storm systems to the east of Kansas. This shifts the Gulf moisture away from Kansas, with more wind events and overall dryness. When we look outside Kansas, drought is already slowly creeping in from almost every direction. This dryness is not favorable with the significant grass growth statewide from last year's favorable growing conditions. Grass is the primary carrier for wildfires in the state, and with more of it, combined with increased wind and dry conditions, it seems very likely we will see an increase in wildfire activity. Additionally, we see the

most acres burned in Kansas during La Niña events. Wildfire and strong wind events are expected to be the highest-impact weather events through March.

Severe Weather Second

The “good news” is that the transition of La Niña is currently expected towards late March. A jet stream shift north/west is typical in April under such circumstances. Moisture is then more likely to stream into the region as we enter the middle of spring. Subsequent rainfall would likely bring a quick end to wildfire activity. However, this moisture usually comes at a cost in the spring. An increase in severe weather usually accompanies an early spring moisture influx. If we examine previous winter La Niña transitioning to El Niño summers (1951, 1965, 1972, 1997, 2023), all observed Kansas tornado outbreaks. Recent research shows a 50% increase in the probability of Kansas tornado outbreaks during April La Niña-to-El Niño transitions (Figure 3).

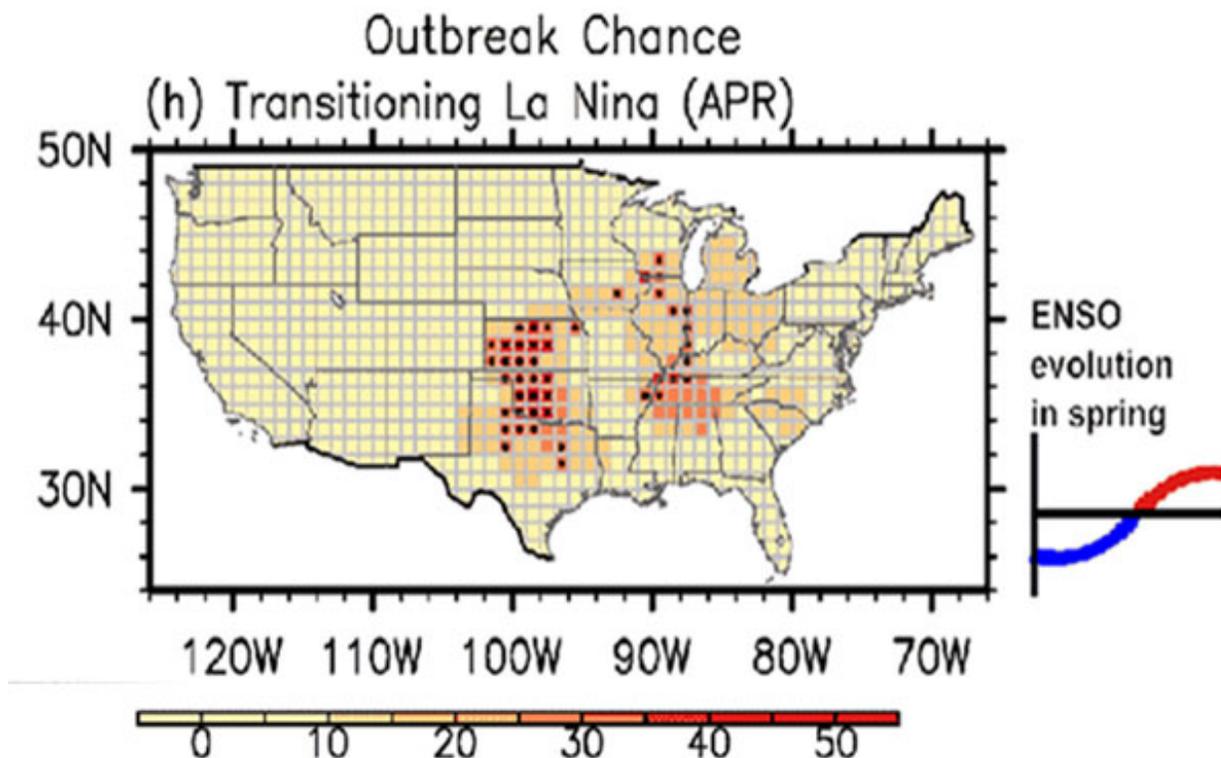


Figure 3. Areas that favor increased probability for tornado outbreaks during winter La Niña April transitions to El Niño. Source: https://www.gfdl.noaa.gov/research_highlight/u-s-regional-tornado-outbreaks-and-their-links-to-spring-ens0-phases-and-north-atlantic-sst-variability/.

Beyond Spring

The spring seasons mentioned above still had some dry areas. A lot of what happens beyond spring

is going to heavily weigh on where spring moisture focuses. Additionally, if El Niño does develop, Kansas is typically favored towards below-normal temperatures and above-normal moisture (Figure 4). These historical trends are optimistic compared to previous summer outlooks. An area to watch will be the Oklahoma/Texas drought to the south. Dryness in this region can expand northward in summer, especially if the southwest monsoon is weak. Models vary in expected monsoonal intensity. Additionally, El Niño can suppress this monsoon moisture, leading to dryness in western/southern Kansas. Local trends will be important into the summer and can easily override large-scale patterns, which create forecasting challenges. Still, I'm fairly optimistic that this summer will trend towards at least timely moisture for most.

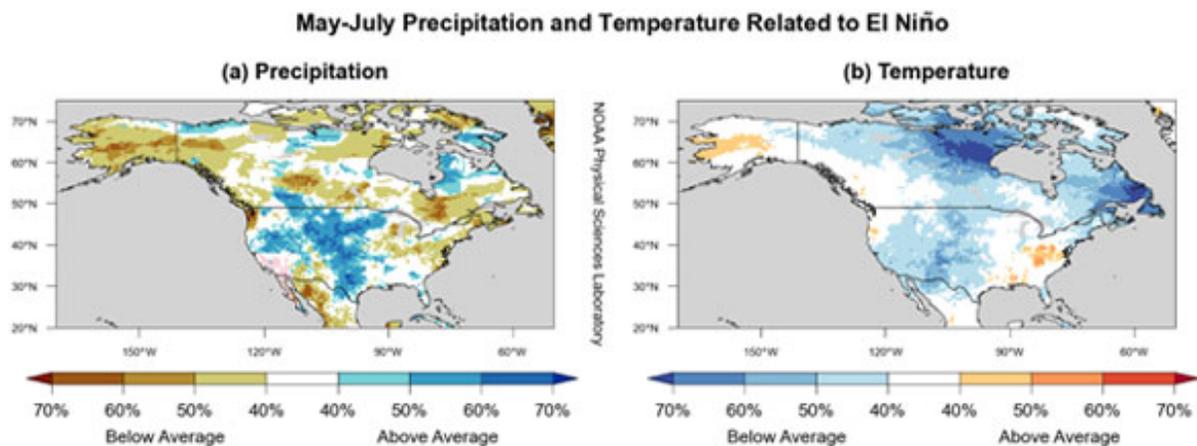


Figure 4. El Niño trends for precipitation (left) and temperature (right) during the summer.

Source: <https://psl.noaa.gov/enso/fewsnet/>.

Take Home Message

- Climatology says the harshest winter conditions are behind us, and warmer-than-normal temperatures are favored through the remainder of winter.
- A transition from La Niña to neutral (or even El Niño) this spring favors active fire weather conditions through March.
- This transition will likely become a wetter pattern with normal to above-normal severe weather for Kansas in April. This wetter trend should mitigate growing drought and continue timely precipitation into early summer.
- There is some potential for the Oklahoma/Texas dryness to expand northward in late summer, but that will weigh heavily on the monsoon.

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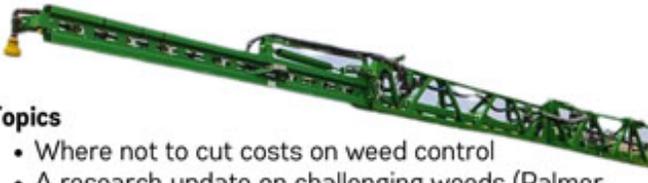
5. K-State Weed Management Schools scheduled for February 16–20

K-State Research and Extension will host a series of Weed Management Schools across northwest and north central Kansas from February 16–20. These programs are designed to provide producers, consultants, and ag professionals with practical, research-based updates on effective weed control strategies heading into the 2026 growing season.

Topics will include where *not* to cut costs on weed control, research updates on challenging weeds such as Palmer amaranth and kochia, and highlights from the 2026 K-State Chemical Weed Control Guide. Presenters include K-State Extension Weed Specialist Sarah Lancaster, K-State weed scientist Pat Geier, and K-State Northwest Area Agronomist Jeanne Falk Jones.

Meetings will be held on February 16 in Goodland, February 19 in Norton and Phillipsburg, and February 20 in Osborne. There is no cost to attend, but pre-registration is requested by February 11. More information and registration details are available at www.bit.ly/KSUWeedSchool.

K-State Weed Management Schools



Topics

- Where not to cut costs on weed control
- A research update on challenging weeds (Palmer amaranth, kochia and other)
- The 2026 K-State Chemical Weed Control Guide

Speakers

- Sarah Lancaster, K-State Extension Weed Specialist
- Pat Geier, K-State Weed Scientist at Garden City
- Jeanne Falk Jones, K-State Northwest Area Agronomist

There is no cost to attend. See specific location information at www.bit.ly/KSUWeedSchool

<p><i>February 16</i> <i>Goodland</i> <i>1:30-4:00</i> <i>pm MT</i></p> <p>Sherman Co 4-H Building 417 N Main Ave, Goodland, KS</p> <p>Sunflower District 785-462-6281</p>	<p><i>February 19</i> <i>Norton</i> <i>9:30-12:00</i> <i>pm</i></p> <p>Norton Co 4-H Building 126 E Park Street Norton, KS</p> <p>Twin Creeks District 785-877-5755</p>	<p><i>February 19</i> <i>Phillipsburg</i> <i>3:00-5:30</i> <i>pm</i></p> <p>Phillips County Fair Building 1481 HWY 183 Phillipsburg, KS</p> <p>Phillips-Rooks Dist 785-543-6845</p>	<p><i>February 20</i> <i>Osborne</i> <i>9:30 - 12:00</i> <i>pm</i></p> <p>United Christian Church 214 N 2nd St, Osborne, KS</p> <p>Post Rock District 785-346-2521</p>
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Please register by Feb 11th
www.bit.ly/KSUWeedSchool



Kansas State University is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to physical vision or hearing disability, contact Jeanne Falk Jones, K-State Agronomist for 785-462-6281.

6. K-State Soil Fertility Schools set for February 25–26

Producers and ag professionals are invited to attend the K-State Soil Fertility Schools, scheduled for February 25–26, 2026, with programs offered in Kearny, Meade, and Pratt counties. The schools will provide research-based guidance on soil fertility management, with presentations from K-State agronomy and soil science faculty and local extension agents.

Sessions will be held on February 25 in Kearny County (noon, lunch provided) and Meade County (6:00 p.m., supper provided), and on February 26 in Pratt County (10:00 a.m., lunch provided). Registration is required; see the flyer for details and contact information.

SOIL FERTILITY SCHOOL

February 25th & 26th 2026

KANSAS STATE
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Extension



Speakers:

Lucas Haag, PhD

Associate Professor
Agronomist-in-Charge, Tribune

Augustine Obour, PhD

Professor, Soil Science

Jessica, Shelby & Jenna

Local Agriculture and Natural
Resources Extension Agents

CONTACT US

Kearny : 620-355-6551

Meade : 620-873-8790

Pratt : 620-672-6121

FEBRUARY 25TH 2026

- **Kearny County - 12:00 PM - Lunch Provided**
Kearny County Fairgrounds
1482 Rd R, Lakin, KS 67860
- **Meade County - 6:00 PM - Supper Provided**
Meade County Fairgrounds - Building B
613 W Washington St, Meade, KS 67864

FEBRUARY 26TH 2026

- **Pratt County - 10:00 AM - Lunch Provided**
Pratt Area 4-H Center
81 Lake Rd, Pratt KS 67124

Register here!



This institution is committed to providing equal opportunity for participation in all programs, services, and activities. Program information may be available in languages other than English. Language access requests and reasonable accommodations for persons with disabilities, including alternative means of communication (e.g., Braille, large print, and American Sign Language), may be requested by contacting the event contact their location four weeks prior to the start of the event January 15th at the numbers above. Requests received after this date will be honored when it is feasible to do so. Language access services, such as interpretation or translation of vital information, will be provided free of charge to limited English proficient individuals upon request. Kansas State University is an equal opportunity provider and employer.

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7. K-State Crop Talk webinar series continues in 2026



The popular K-State Crop Talk online webinar series is back, kicking off on February 10, 2026. The Crop Talk series will highlight several topics important to crop producers in north central and northwest Kansas. Topics include flex leases, soil water availability, wheat breeding efforts on mosaic viruses, fungicides for corn and sorghum, and insect control. Continuing education credits will be offered, with one credit for each session.

Each webinar will begin at 12:00 pm (CST) and last until 1:00 pm, beginning with the first one on Tuesday, February 10. If you missed the first one, you can still register to receive links for the upcoming webinars.

Upon registration, participants will receive an email with instructions to attend via Zoom or YouTube. These virtual webinars are open to all and free. Register online at <http://www.bit.ly/KSUCropTalk> or call your local extension office.

A complete list of webinars, with dates, topics, and speakers, is detailed in the flyer below.



CROPtalk

Broadcast Live from 12:00 – 1:00 pm CT
via Zoom and YouTube

February 10

Understanding Flex Leases

Robin Reid, K-State Extension Ag Economist

February 17

Available Soil Water At Planting and Related Management

John Holman, K-State Extension Cropping Systems Agronomist

Augustine Obour, K-State Professor of Soil Science

February 24

Wheat Conditions & Breeding Efforts on Mosaic Viruses

Allen Fritz, K-State Wheat Breeder

March 3

Fungicide Applications in Corn and Sorghum

Rodrigo Onofre, K-State Extension Plant Pathologist

March 10

What's Bugging You? Insects to Watch for in the Field

Anthony Zukoff, K-State Entomologist



Scan me!

Register to attend at
www.bit.ly/KSUCropTalk

Links for joining will be sent after registration.
One Certified Crop Advisor (CCA) Credit per session has been applied for.

KANSAS STATE
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If you have questions, please contact your local Extension agent or the K-State
Northwest Research and Extension Center at 785-462-6281.

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