Issue 1041

K-STATE Research and Extension

Extension Agronomy

eUpdate

02/20/2025

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. 2025 Kansas training information for paraquat

This article answers frequently asked questions about the paraquat dichloride training for certified applicators.

Do all paraquat dichloride product labels require additional training?

All products with the new labeling with the active ingredient paraquat dichloride, such as Gramoxone, Firestorm, Helmquat, and Parazone, will require additional training in order to apply these products. Remember if the new training requirement is listed on the label of the product you are using, then you MUST complete the training. All paraquat labels include a link to the training.

Who is required to take this training?

Any person intending to use paraquat must be a certified applicator and is required to take this training.

How often am I required to receive the training?

The training is required every three years. Check to make sure your training is current!

Do I need to be certified to use products containing paraquat dichloride?

These labeled products state that "Product may ONLY be mixed, loaded or applied by a certified applicator who has successfully completed the paraquat-specific training before use. Application "under direct supervision" of a certified applicator is NO LONGER allowed. In Kansas, this means that everyone purchasing and using these products has to either obtain a private applicator license (application to agricultural lands owned or operated by individuals) or a commercial applicator license (applicators applying to other people's land for compensation). If you have been applying under someone else's license in the past, you will need to get your own license before applying these products.

How can I complete the training requirements?

Now, two training options meet the requirements required by the EPA. One is housed on the eXtension website and can be found at: http://usparaquattraining.com. If you don't currently have an account, you must create one before it allows you to take the training. For in-person training materials, please visit https://npsec.us/paraquat. Note that this training now costs $25. The other option is to take the training provided by Syngenta Crop Protection, which can be found at https://syngentaus.docebosaas.com/learn/signin.

This information is made available by the K-State Pesticide Safety and IPM Program. Contact your local Extension Office if you need any additional information.

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2. Agricultural Risk Coverage and Price Loss Coverage elections with Farm Service Agency

Producers have until April 15, 2025, to make their farm program selections for crops to be harvested in 2025. Both Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) are offering higher price benchmarks this year, as historical prices setting these guarantees have been higher.

	Corn	Grain Sorghum	Soybeans	Wheat
PLC 2025 Reference Price	$4.26	$4.51	$9.66	$5.56
ARC 2025 Benchmark Price	$5.03	$5.30	$12.17	$6.72
86% of ARC Benchmark	$4.33	$4.56	$10.47	$5.78

PLC will make payments if the national Marketing Year Price (MYA) falls below these reference prices. Producers will receive a payment calculated as the difference between the reference price and the MYA, times their individual farm's established program yield with FSA, then paid on 85% of their base acres in that commodity. This program will pay on losses in price unless the MYA gets below loans rates established in the 2018 Farm Bill, which means large payments will occur if commodity prices are low.

ARC is a revenue program, which takes the benchmark price in the table above and multiplies it by the county's benchmark yield to establish a benchmark revenue for each crop. If the current year's revenue (national MYA price multiplied by the 2025 county yield) is less than 86% of this amount, there will be an ARC payment. That is why "86% of ARC Benchmark" is also included in the table, as these would be the MYA prices that would trigger an ARC payment if the county had an average yield. The advantage of this program is that it has both a yield and price component, which has produced ARC payments in recent years due to drought, even at high prices. The disadvantage is that the payment is capped at 10% of benchmark revenue, which tends to happen quite quickly if a payment is triggered. Like PLC, it also pays on 85% of the farm's base acres in each crop.

Remember the payments for the 2025 crop year will NOT be paid until October of 2026 once the 2025 county yields are determined and Marketing Year Average price is known, so a lot could happen to market prices between now and then. While ARC may be more likely to pay unless there is a bumper crop yield in the county, overall protection against low prices is less than PLC because of the 10% cap on payments. A great tool for assessing potential ARC-CO versus PLC payments at

various MYA price levels and county yields is the ARC/PLC Tradeoff spreadsheet found here: https://agmanager.info/ag-policy/2018-farm-bill/tradeoff-between-20252026-arc-and-plc

Another factor in the decision to choose ARC or PLC for each crop is if a producer wants to elect the Supplemental Coverage Option (SCO) on their individual crop insurance. If so, base acres in that commodity cannot be enrolled in ARC. For many counties, their benchmark yield for ARC is much higher or lower than their expected yield (provided by RMA). A much higher benchmark means ARC will trigger easily, a lower benchmark yield means that this is less likely. A new tool that also analyzes SCO in relation to ARC and PLC can be found here: https://agmanager.info/crop-insurance/crop-insurance-papers-and-information/advanced-arc-plc-sco-tradeoff-tool

The K-State Department of Agricultural Economics recently had a webinar on these topics, with more in-depth information and analysis. The recording is available here: https://agmanager.info/events/2025-winter-wednesday-webinars

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3. Kansas Drought Update and Climate Report for February 12-18

Temperature and precipitation summary

The week featured two significant storms and two intrusions of Arctic Air, with a milder, dry respite in between. The first storm brought snow to the entire state. Amounts were generally less than forecast, as dry air ushered in by northeast winds reduced available moisture for snow production. Most of the state picked up between 1 and 4 inches. The highest reported total was 7" near Hunter in Mitchell County. Additional higher totals include 5.5" in Ness City, 5" in Marysville, and 4.5" in Atwood. Behind the departing low, frigid air overspread the state. Lows across the Kansas Mesonet on the 13th averaged a bitterly cold -7°, and the winter's coldest temperature was recorded at the Scott City Mesonet tower that morning at -19.4°. There was a brief warmup on Valentine's Day, especially in western Kansas, where highs reached well above normal in many locations, with 60s and even a few 70s noted. The cooperative observer and Mesonet site near Syracuse both recorded highs that afternoon of 74°. Colder air took hold once more on the 15th, and intensified through the end of the period, with a decrease in average temperatures each day from the 14th through the 18th. The average temperature in the state on the 18th was 0°, or 34° below normal, the most below normal day in four years since the bitter cold outbreak of mid-February 2021. The average high on the 18th was 5° or 42° below normal, and 21 Mesonet sites stayed below zero for the entire day. In addition to the cold, snow again fell across all of Kansas. Despite the very cold air in place, a few locations picked up heavy snow. Sterling had the highest total of 10.5". Other high totals of note include 9.5" in Colby, 8.8" in Great Bend, 8" in McPherson, 7.8" in Iola, 7.1" in Hutchinson, and 7" in Newton. Similar to the first system, most snow totals in the state were in the 2 to 4-inch range. Bitter cold wind chills were the rule on the 18th, with most locations recording minimum wind chills from 15 to 30 below zero.

The 7-day average temperature for the state was 17.8°, or 16.3° below normal (Figure 1). Divisional departures ranged from -18.4° in northeast to -14.3° in southwest Kansas. The statewide average precipitation for the 7-day period was 0.28", which is exactly normal (Figure 1). Six of the nine climate divisions finished the period with above-normal average precipitation, with northwest Kansas leading the way with both the highest amount (0.38") and the highest percent of normal (262%). The driest division was southwest Kansas (0.15") but the lowest percent of normal was in southeast Kansas (62%). For the year to date, the average precipitation across Kansas is 1.28", or 0.16" below the normal amount of 1.44". Five divisions are above normal for the year to date, with northeast Kansas being the wettest (2.50"). Southwest Kansas is the driest division (0.44"). Totals for the water year are still above normal statewide. The average precipitation since October 1st is 7.24", or 111% of the normal of 6.52", a departure of +0.72". Divisional departures range from +0.31" in the northwest to +2.07" in south central Kansas. Percents of normal range from 105% in east central to 137% in southwest Kansas.

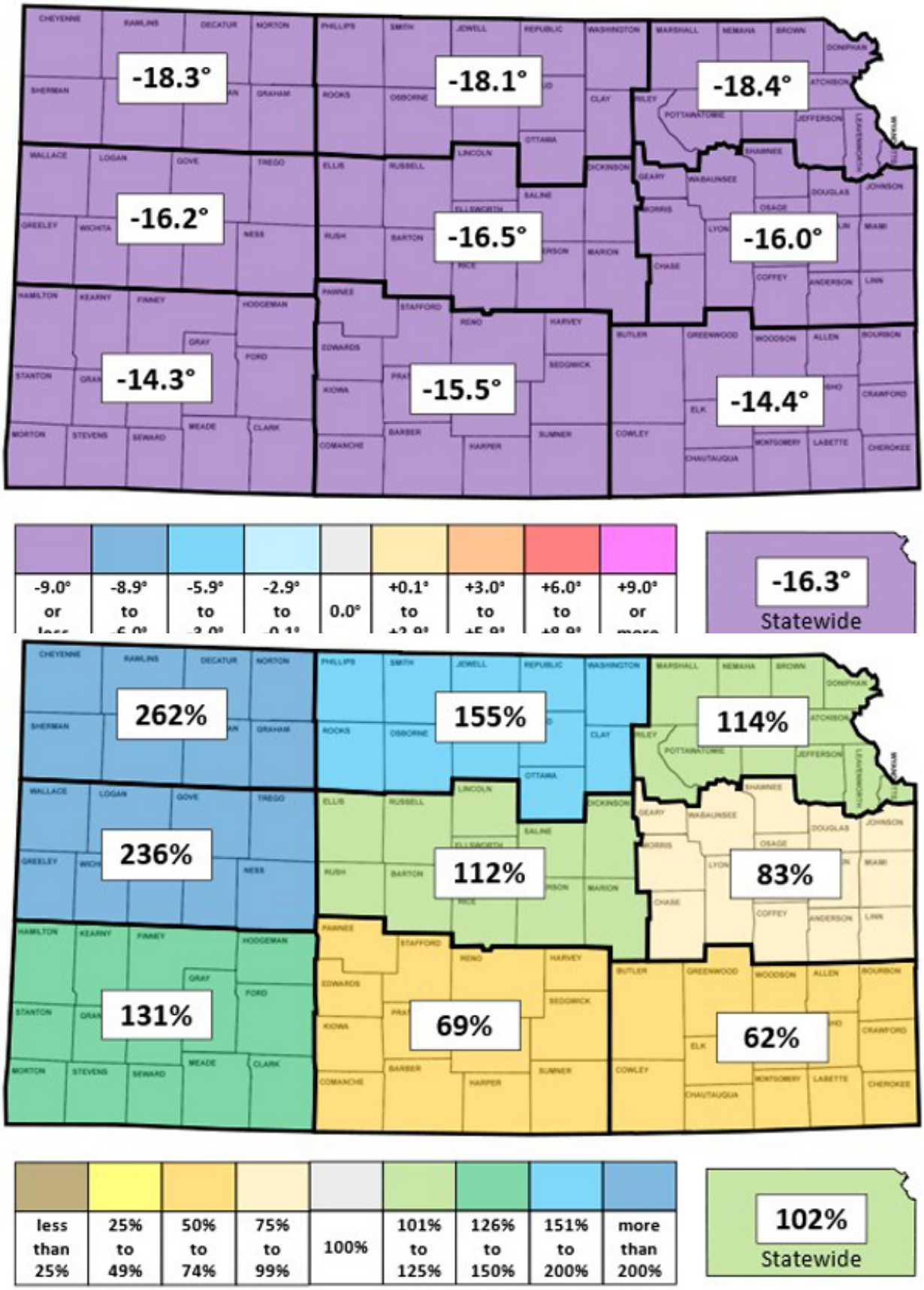


Figure 1. This week's departure from normal temperature (°F, top) and percent of normal

precipitation (bottom) by Kansas climate division (Source: MRCC).

The average evapotranspiration for grass across the state for the week was 0.25". This is much below the normal amount (based on 12 years of Kansas Mesonet data from 2013 through 2024) of 0.46" for the 7-day period. Divisional averages ranged from 0.19" in north central, northeast and east central Kansas to 0.37" in southwest Kansas. The statewide average 2" soil temperature across the Kansas Mesonet cooled 2.6° since last week to 32.5°, which is 3.7° below the normal of 36.2° for the 7-day period. Divisional averages ranged from 30° in northwest to 36° in southeast Kansas.

Drought Update

In this week's update of the US Drought Monitor (Figure 2), one-category improvements were made to parts of ten counties: Cheyenne and Sherman in northwest Kansas and eight counties in northeast Kansas. The changes in northeast Kansas include the communities of Seneca, Hiawatha, Troy, and Atchison. These adjustments added 2.3% to the percentage of drought-free areas in Kansas, which now stands at 33.9%. The statewide Drought Severity and Coverage Index (DSCI) fell 3 points to 88. The DSCI has been under 100 for 12 straight weeks, the longest run in over 3 years.

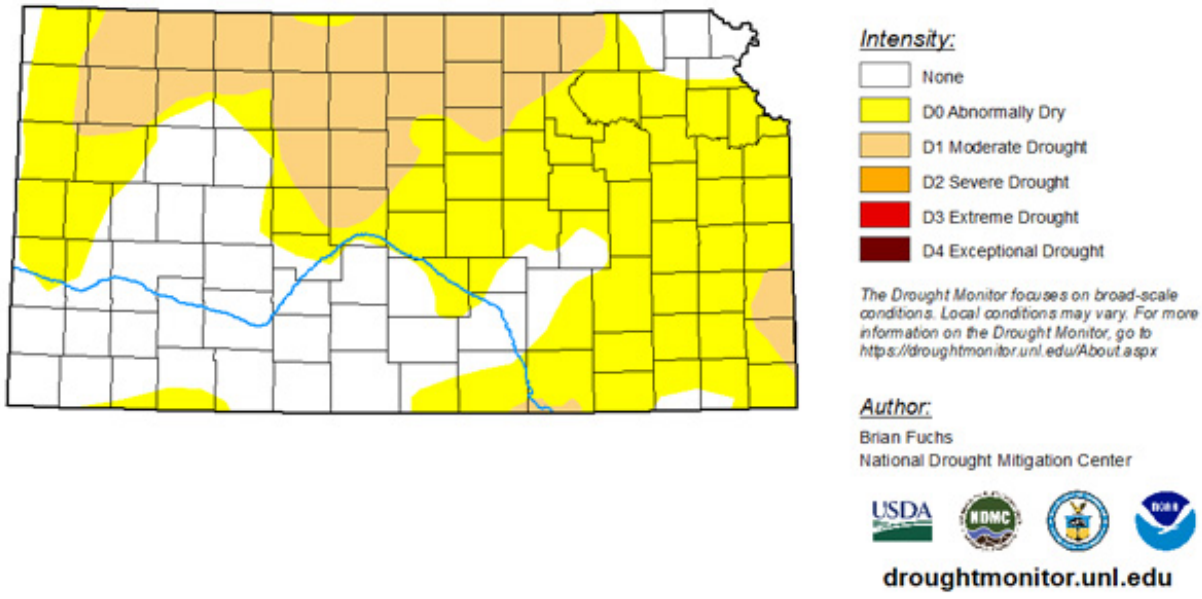


Figure 2. Drought monitor for Kansas as of February 18. 2025

Weather Outlooks

The Weather Prediction Center's 7-day precipitation forecast, valid for the period February 19-26, calls for a dry week in most areas, with some very light precipitation possible in northwest Kansas (Figure 3). A warming trend is forecast to commence on Friday, with above-normal temperatures expected by early next week. However, with a very cold start to the period, the 7-day average should end up 5 to 10 degrees below normal. The month to date is running over 6 degrees below normal and will almost certainly be the second consecutive month with a below-normal average temperature. The average daily high and low across Kansas for this period are 49° and 24°. Average

7-day precipitation is 0.14" in western, 0.26" in central and 0.40" in eastern Kansas.

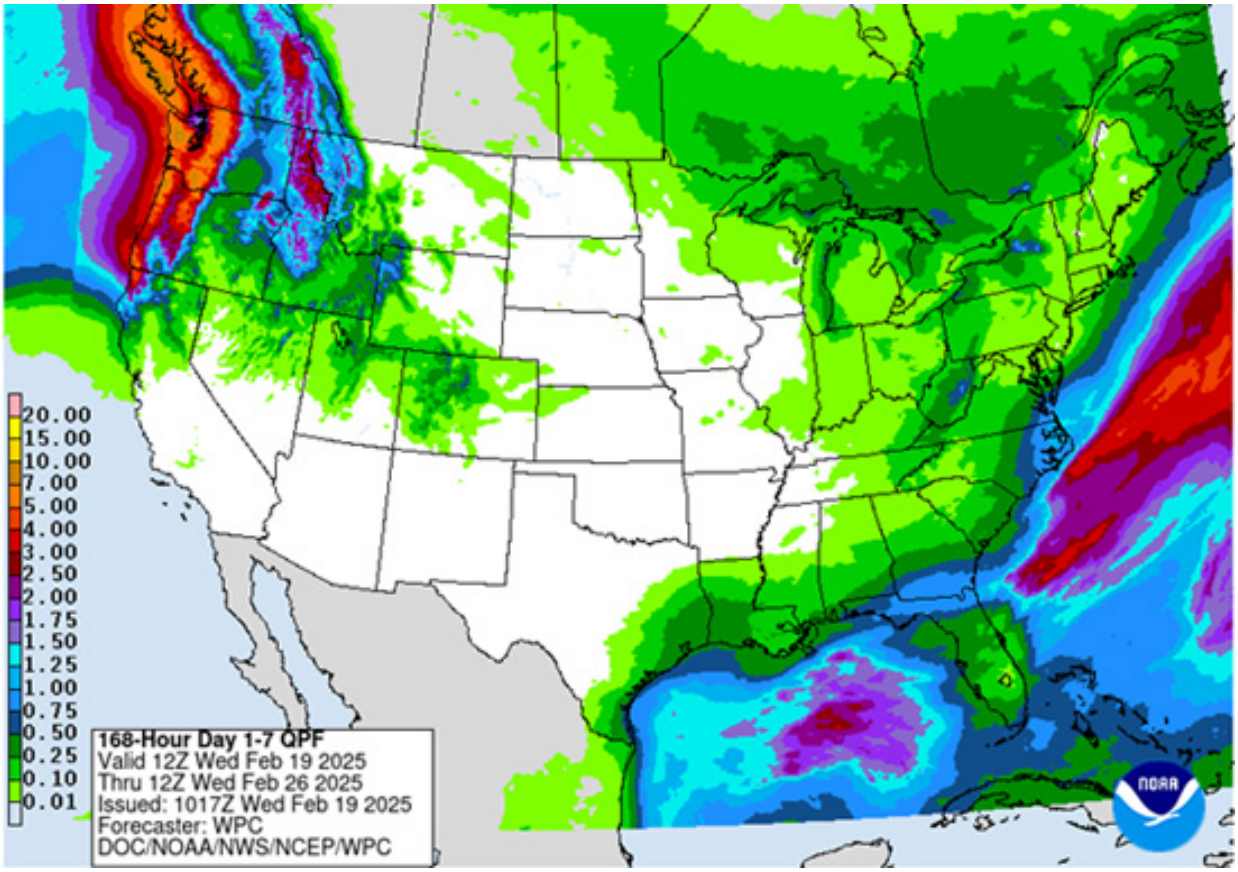
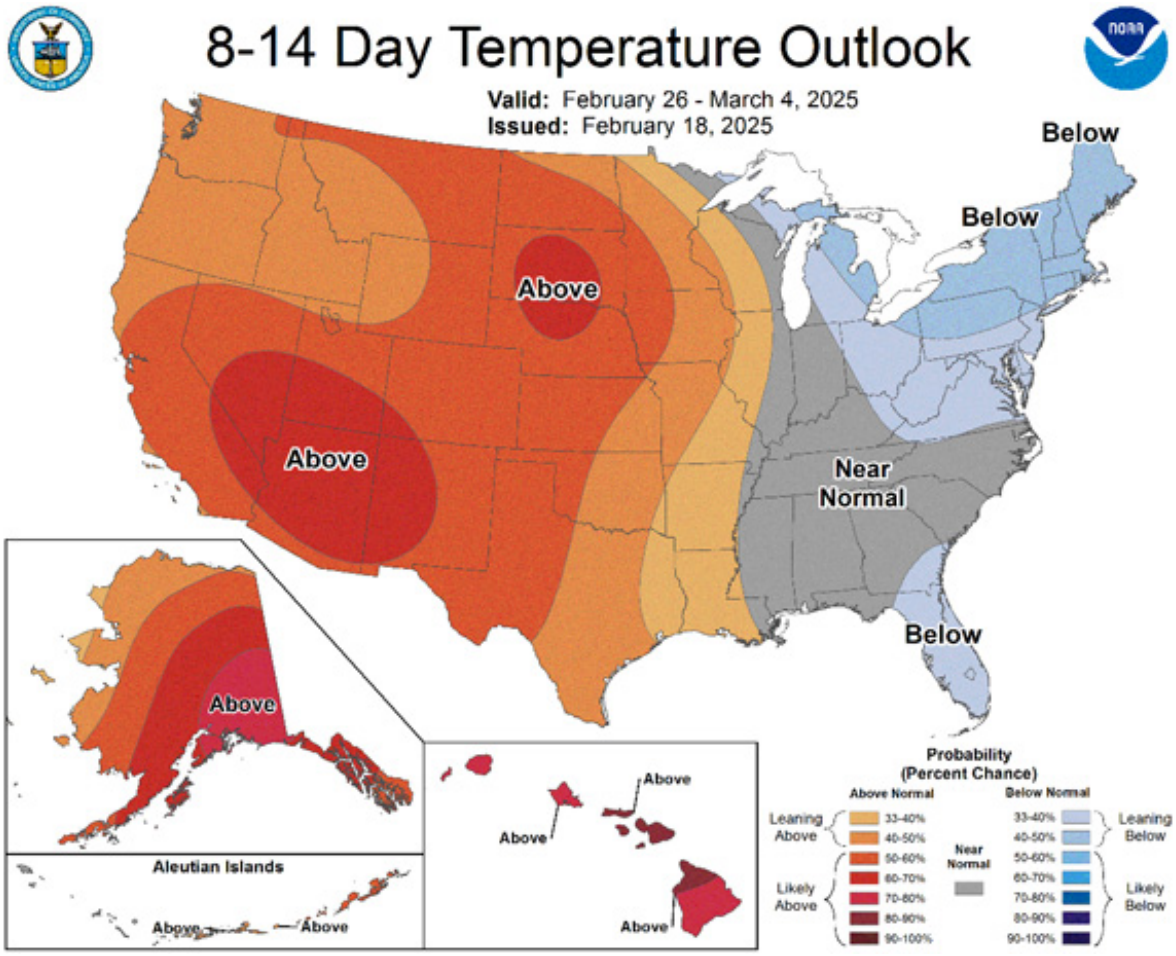


Figure 3. The National Weather Service Weather Prediction Center's (NWS-WPC) 7-day precipitation forecast.

In the longer term, the 8 to 14-day outlook, valid for the period February 26 to March 4, favors above-normal temperatures in all areas (Figure 4). The probability of above-normal temperatures ranges from 42% in the far southeast to 57% in far northwest Kansas. Above-normal precipitation is slightly favored in all areas, with probabilities ranging from 36% to 41%, highest in the far southwest.



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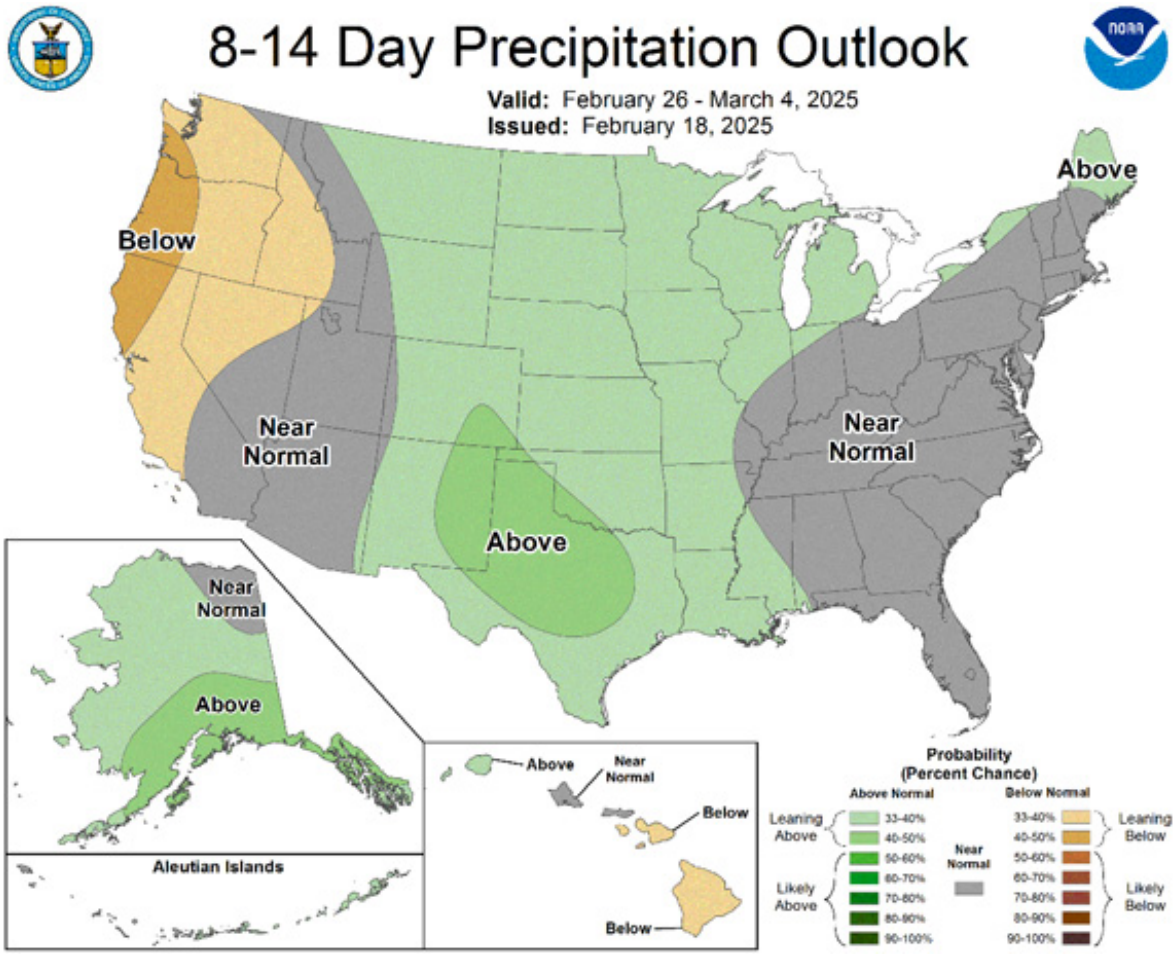
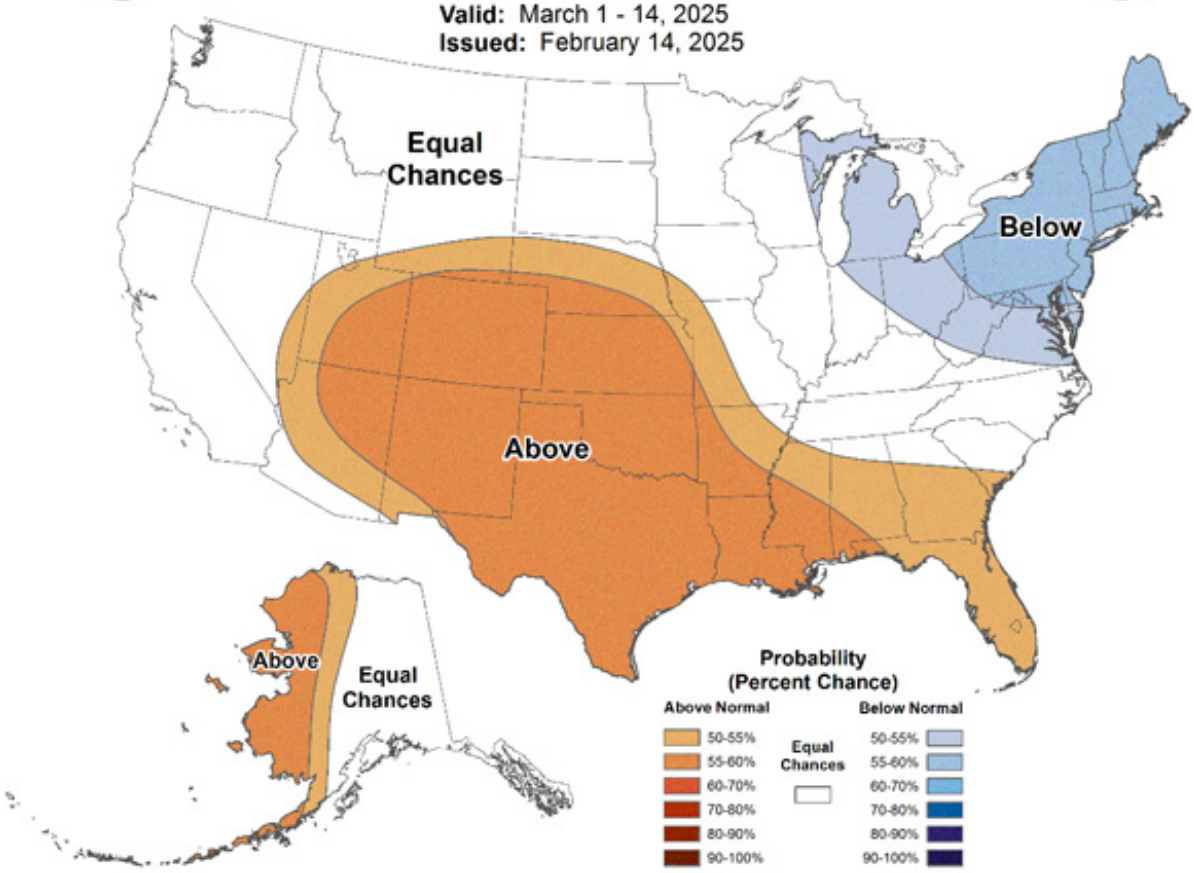


Figures 4. The National Weather Service Climate Prediction Center's (NWS-CPC) 8 to 14-day temperature (top) and precipitation (bottom) outlooks.

Looking even further ahead, the Climate Prediction Center's weeks 3 and 4 outlooks, valid for the 14-day period from March 1-14, favor above-normal temperatures, with probabilities from 50% to 60% (Figure 5). There are equal chances of above and below-normal precipitation statewide for the majority of the state, with slightly above-even chances of below-normal precipitation in southwest and south-central Kansas.

Weeks 3-4 Temperature Outlook

Valid: March 1 - 14, 2025
Issued: February 14, 2025



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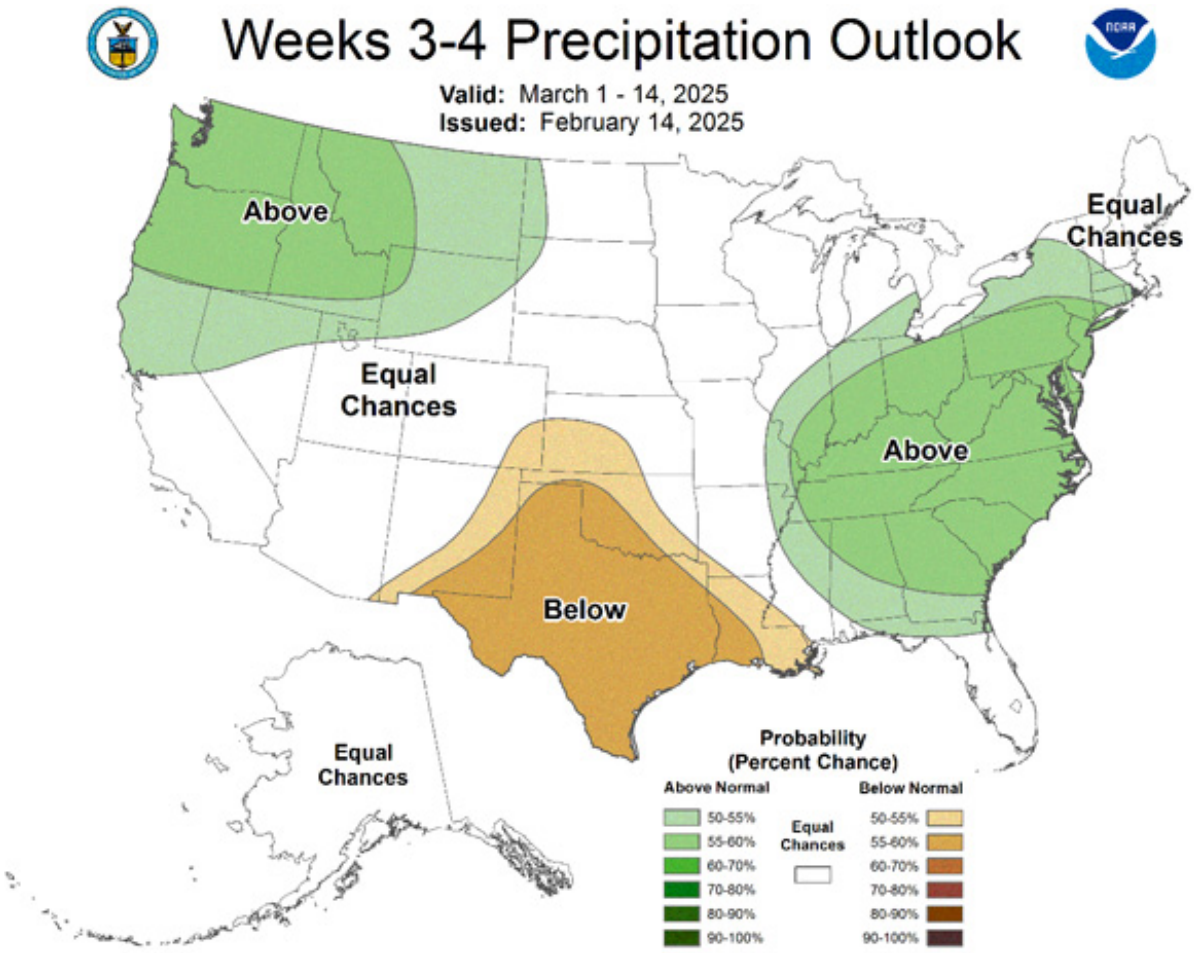

Figures 5. The Climate Prediction Center's weeks 3 and 4 outlooks for temperature (top) and precipitation (bottom).

This article is a shortened version of the weekly Kansas Drought Update and Climate Report**.** If you would like to receive the full report delivered to your email each week, please send a request to Matt at msittel@ksu.edu. He will add you to his distribution list.

Matthew Sittel, Assistant State Climatologist
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4. K-State Crop Talk webinar series

The popular K-State Crop Talk online webinar series is back! The Crop Talk series will highlight several topics important to crop producers in north central and northwest Kansas. Topics include weed management, maximizing irrigation applications, leveraging precision ag tools, dryland tillage and rotations, and corn stunt. 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. The first webinar occurred on February 11 and will continue every Tuesday until March 11.

Upon registration, participants will receive an email with instructions on how to attend via Zoom or YouTube. These virtual webinars are open to all, and there is no cost. Register online at https://www.northwest.k-state.edu/events or call your local extension office.

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

February 25 – **Leveraging Precision Ag Tools**
Deepak Joshi, K-State Precision Ag Specialist

March 4 – **Dryland Tillage and Rotations**
Lucas Haag, K-State Northwest Area Agronomist

March 11 – A New Corn Disease: Corn Stunt
Anthony Zukoff, K-State Entomologist and Rodrigo Onofre, K-State Plant Pathologist


Broadcast Live
12:00pm - 1:00pm CST via ZOOM and YouTube
CROPtalk
Webinar Series
K-STATE
Research and Extension
Focused on crop production in Northwest and North Central Kansas
February
11
Weed Management in the Age of New Technology
Sarah Lancaster,
K-State Extension Weed Scientist
18
Getting the Most Out of Your Irrigation Water
Jonathan Aguilar,
K-State Irrigation Engineer
25
Leveraging Precision Ag Tools
Deepak Joshi,
K-State Extension
Precision Ag Specialist
March
4
Dryland Tillage and Rotations
Lucas Haag,
K-State NW Area Agronomist
11
A New Corn Disease: Corn Stunt
Anthony Zukoff,
K-State Entomologist
Rodrigo Onofre,
K-State Plant Pathologist
Certified Crop Advisor (CCA) Credits will be offered
register to attend at
www.northwest.ksu.edu/events
Links for joining will be sent after registration
For more information, contact Sandra L. Wick
Post Rock Extension District Crop Production Agent
swick@ksu.edu 785-282-6823 postrock.ksu.edu
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5. Save the Date for Wheat Rx seminars in Salina and Colby

Mark your calendars for two upcoming Wheat Rx seminars! Kansas Wheat Rx combines suggested management practices for the economical and sustainable production of high-quality winter wheat in Kansas. Speakers will discuss variety selection, weed control, disease management, soil fertility, and more.

The first seminar will take place in Salina on March 11. This seminar was originally scheduled for Feb. 11 and was postponed due to inclement weather. If you registered for the original date, your registration was rolled over to the new date of March 11.

The second seminar will be held in Colby on March 12. The program is still being finalized and will be available soon.

These events are free for members of the Kansas Association of Wheat Growers (KAWG). It costs $110 for non-members; however, the event fee includes KAWG membership.

Online registration is open for both seminars at kswheat.com/wheatrx.

Romulo Lollato, Wheat and Forages Specialist
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6. Updated: Kansas Agricultural Technology Conference - March 7 in Clay Center

This year, the Kansas Agricultural Research and Technology Association (KARTA) and the KSRE River Valley District are collaborating to put on a "Wild" KATCON in Clay Center, KS, on Friday, March 7. This will be an all-day event, from 9 AM - 7 PM. There will be numerous presentations, divided between K-State Extension Specialists and farmer/industry researchers, with an evening presentation delivered by Dr. Wes Lowe of Mississippi State University on the use of "See & Till" technology. There will also be several hours of structured time for trade show participation and a catered lunch and supper.

Registration for the conference is $75 with a reduced price of $25 for students. Agribusinesses or organizations that would like to table at the trade show have a $375 vendor fee that includes two conference registrations and a five-minute promo spotlight during the program.

Event Schedule

8:00 AM Registration/Trade Show

9:00 AM Different Management Zones and Variable Rate Application – Dr. Deepak Joshi

9:40 AM Exhibitor Spolight

9:50 AM On-Farm Trials of Pivot Bio ProveN Products/Showcasing K-State TAPS – Darren Hoffmann/Daran Rudnick

10:30 AM Tradeshow

11:00 AM Variable Rate Irrigation and Sprinkler Alternatives – Dr. Tina Sullivan

11:40 AM Exhibitor Spotlight

11:50 AM Drone Test Range and Large Spray Drones – Lukas Koch

12:30 PM Lunch/Trade Show

1:30 PM Targeted Herbicide Application Technology in Kansas – Dr. Sarah Lancaster

2:10 PM Exhibitor Spotlight

2:20 PM On-Farm Trials of Emerging Weed Management and Irrigation Technologies – Ray and Ryan Flickner

3:30 PM TBD – Dr. Lucas Haag

4:10 PM Exhibitor Spotlight

4:20 PM Retrofitting Self-Driving Mode Kits onto John Deere Tractors – Brian Ganske

5:00 PM Supper/Trade Show

6:00 PM See and Till: A Novel Approach to Using See and Spray Technology to Address Herbicide Resistance – Dr. Wes Lowe

For more information and to register, please visit the KARTA website at https://www.karta-online.org/.


26th KANSAS AGRICULTURAL TECHNOLOGIES CONFERENCE
WILD
KATCON
2025
Kansas Agricultural Technologies Conference
FRIDAY, MARCH 7th, 2025
CLAY CENTER, KS
Presented by
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Kansas Ag Research & Technology Association
K-STATE Research and Extension
River Valley District
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