



K-STATE
Research and Extension

Extension Agronomy

eUpdate

01/11/2024

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. Significant cold is coming - Monitor livestock conditions using the Animal Comfort Tool

The winter of 2023-2024 has been mild thus far, but much colder conditions are in the forecast. These much colder conditions will likely negatively impact cattle, particularly calves (Figure 1). To aid producer management decisions, a cattle comfort tool on the Kansas Mesonet can be found at <https://mesonet.ksu.edu/agriculture/animal>. This tool can aid in decision management with the evaluation of current conditions and even the seven-day forecast. Both are critical as the recent warmer-than-normal temperatures have not allowed cattle to adjust to colder conditions. Additionally, with calving season approaching – increased proactive measures may be required to minimize potential loss.

Users can access this tool from either the main Mesonet page at the link above or by selecting from the drop-down menu Agriculture and then Animal Comfort (Figure 2).



Figure 1. Cattle in the snow. Photo used with permission; source: twitter.com/MarkRMclntsh).

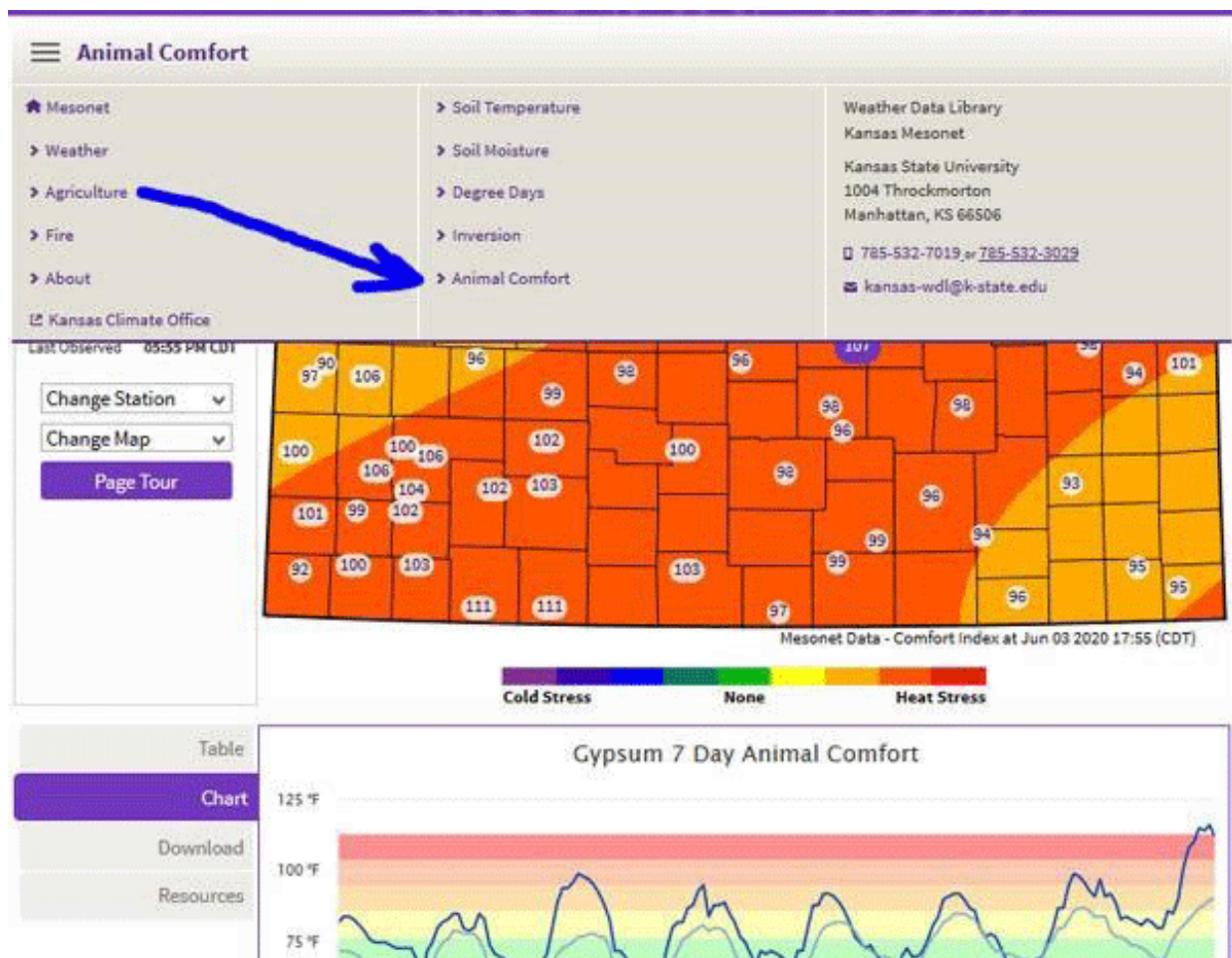


Figure 2. Screenshot of the menu path to the Comfort Index page on the Kansas Mesonet.

Utilizing the Forecast Animal Comfort Index

This product utilizes the National Weather Service hourly forecast (averaged over the hour, meaning extremes could be slightly more) for the next seven days. This data consisting of solar, wind, temperature, and humidity is utilized in the Comprehensive Comfort Index equation from the University of Nebraska. The ability to handle both hot and cold extremes provides a year-round product to increase producer awareness in advance of critical weather. Data is displayed on a graph and a summarized table (Figure 3), allowing quick analysis of conditions on desktop and mobile browsers in an easy-to-read format.

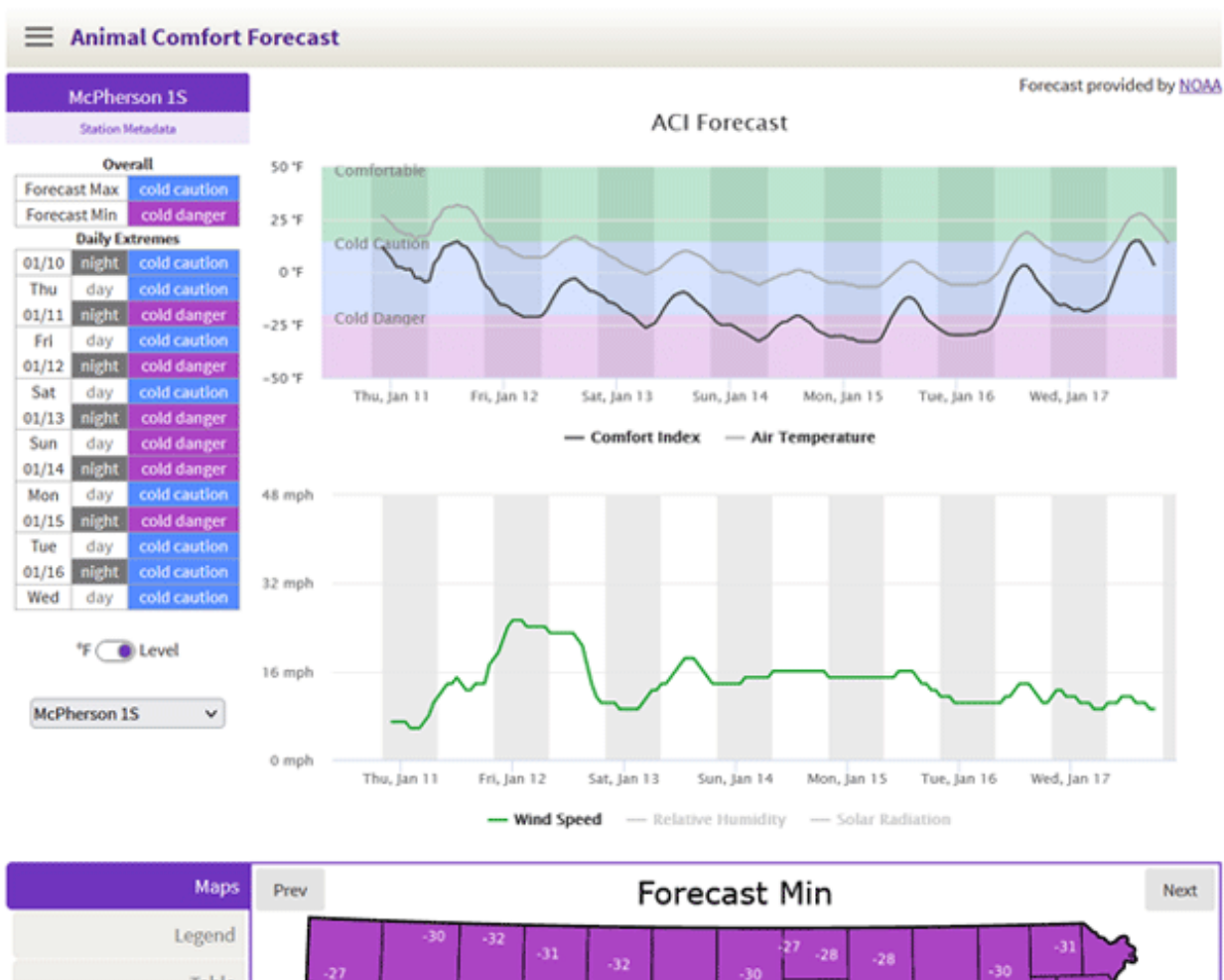


Figure 3. The Forecast Animal Comfort as found on the Mesonet in advance of the mid-January cold snap.

It is important to note that the forecast is only a guidance product. Forecasts are subject to change, and conditions could vary significantly based on numerous external factors. Actual animal response to temperature stress will depend on several factors not accounted for in the index. Those include but are not limited to age, hair coat (winter vs. summer; wet vs. dry), health, body condition, micro-environment, and acclimatization. Additionally, recent moisture has also resulted in mud which increases stress levels for livestock.

Tracking conditions with current data

One of the most basic ways to verify a forecast is to look at current conditions. The original Animal Comfort product remains to allow producers to see the real-time weather stress at the nearest Mesonet location. This displays both the current data up to (fifteen-minute intervals).

Users can scroll down the page and view the previous seven days' hourly data on the "Chart" (Figure 4). This is particularly useful for producers that suffered loss and want to capture the conditions that took place in the previous week. You can also download the data in a comma-delimited form for use

in Excel or similar software. This can be found under the “Download” tab.

No historical data download is available beyond the last seven days, so this information must be captured quickly.

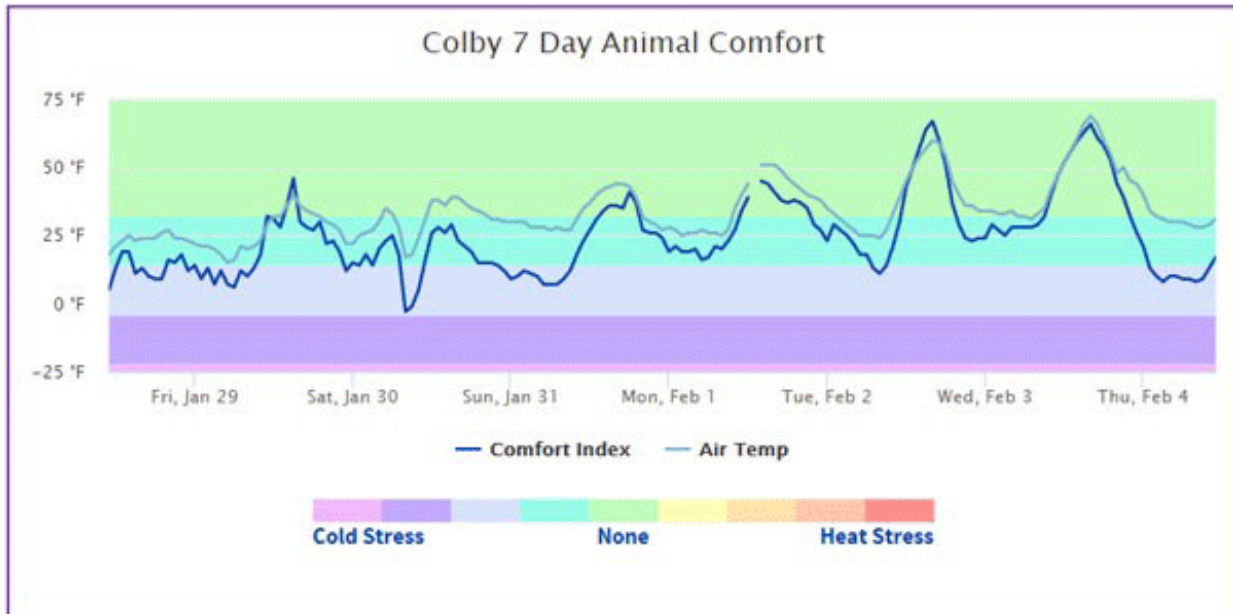


Figure 4. Animal Comfort Index history at Colby Mesonet station. Graphic from Kansas Mesonet.

The displayed data does not consider conditions compared to “normal.” Solar radiation, wind, and humidity data are hard to put into a climatological (or long-term) perspective since recorded data is relatively new (only about 15 years of data at most stations). Thus, climatological data is limited for the animal comfort index. If you need historical data, please reach out to our staff at kansas-wdl@ksu.edu, and we’d be glad to pull older data that may exist.

If you want to read more about the Forecast or Current Conditions pages, please visit <https://mesonet.ksu.edu/agriculture/animal> and scroll down to the “Resources” tab.

Christopher “Chip” Redmond, Kansas Mesonet Manager
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2. Wind chill analysis tool from Kansas Mesonet

The forecast for the coming week consists of bitter cold air, the coldest of the 2023/2024 winter season thus far. However, the temperature does not always give the air that nip. The “feels like” temperature is also usually influenced by the wind. We call this the wind chill.

What is the wind chill?

When temperatures drop below 50°F and wind speeds are greater than five mph, the “Feels Like” temperature is lower than the actual temperature. Wind chill can be calculated in two ways: 1) using the chart below or 2) mathematically. Wind chill values decrease as the wind increases and/or the temperature decreases. This means that despite it being 0°F on a very cold morning when factoring in the wind (for example, 20 mph), it can feel like a much colder temperature (in this example, -22°F).

This colder “feels like” temperature can make you feel chilled quicker and lead to other problems such as frostbite much quicker. Exposure time estimations of frostbite issues at 0 degrees F with no wind is 30 minutes, while 0°F and 55 mph winds are less than 10 minutes of exposure. Wind chills can be determined by the following chart from the National Weather Service (<https://www.weather.gov/safety/cold-wind-chill-chart>):

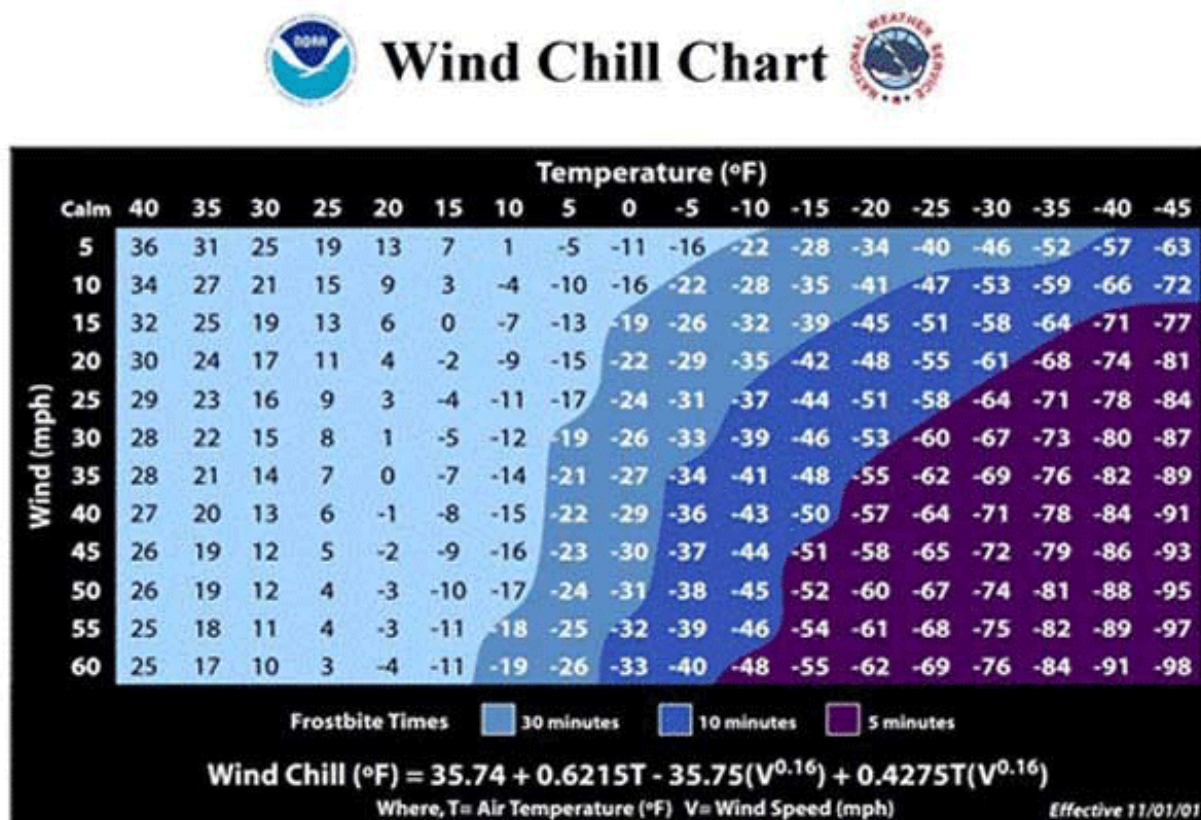


Figure 1. Wind chill chart from the National Weather Service.

Where can you access wind chill data?

The Kansas Mesonet makes viewing the wind chill very easy! We have put together a webpage depicting the current wind chill via a gradient map here: <https://mesonet.ksu.edu/weather/windchill/>. It can also be accessed via the menu in the top left (Menu à Weather à Wind Chill)

The map defaults to the current wind chill but also has a selection at the top where you can change the map to view temperature and wind speed/direction. Since these are the two ingredients for the wind chill, it tells the complete story. The table below the map also displays each station's wind chill, temperature, and wind data in sortable columns. By clicking the column headings, that particular column will sort from lowest to highest values. Click it again, and it will reverse the order. You can also select a specific station either on the map or in the data table, and it will display the specific information for that location.

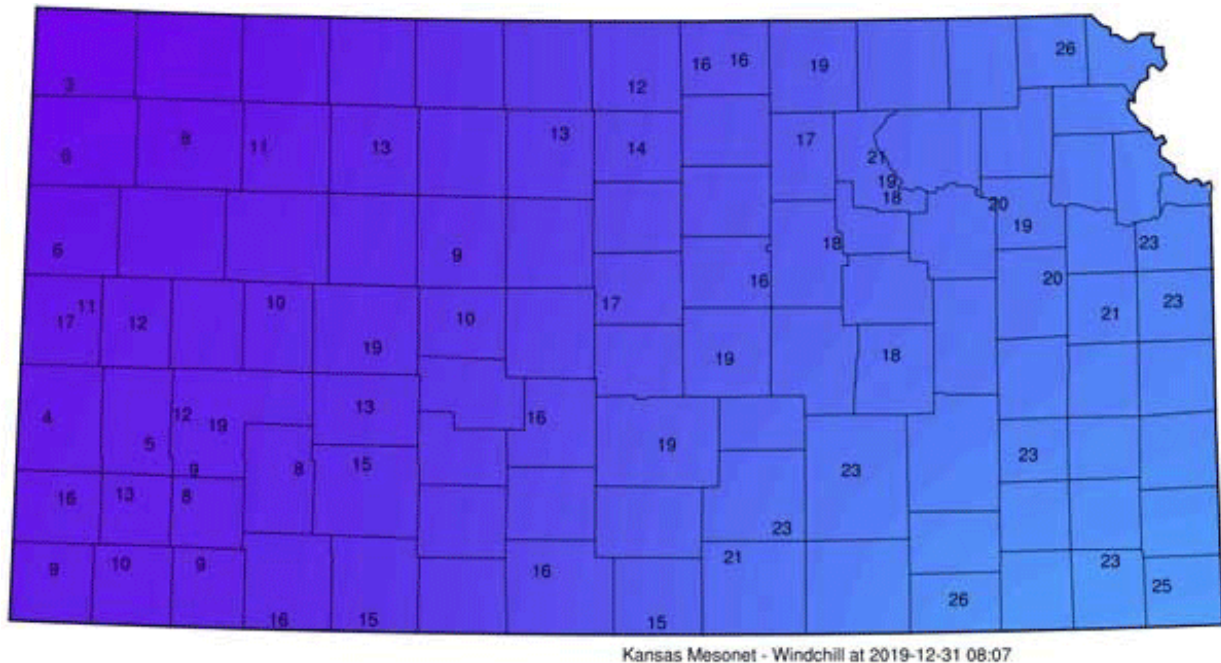
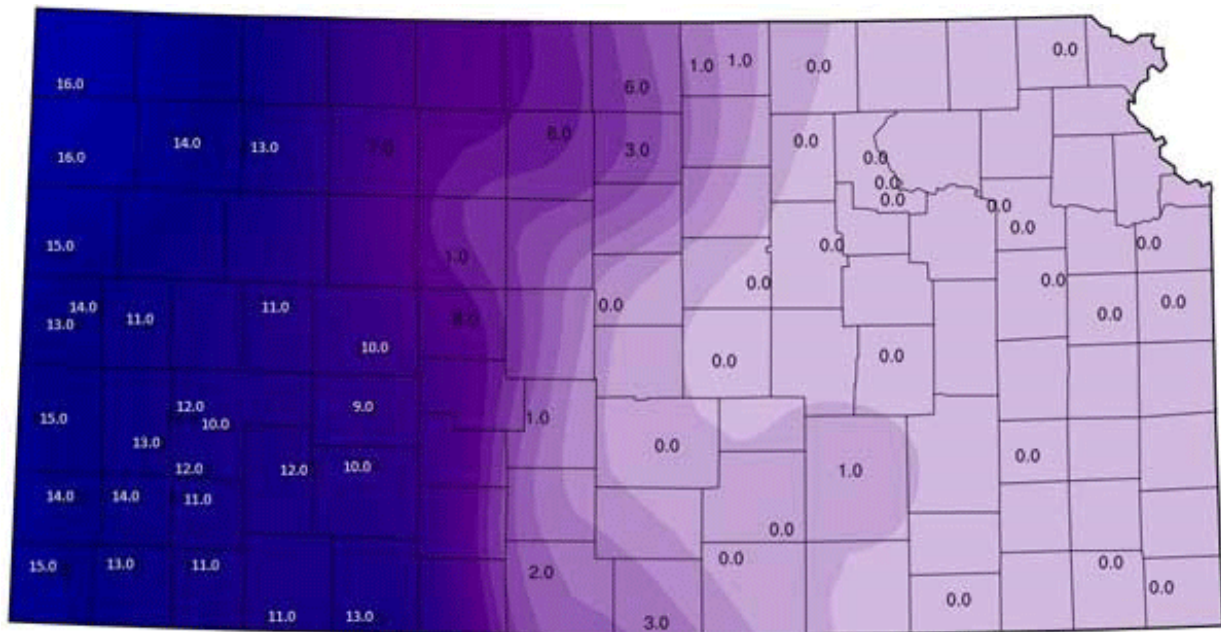


Figure 2. Map of wind chills as of 12/31/2019 at 8:07 am.

How many hours has the temperature been below freezing?

Winter wheat and cover crop producers still have an interest in the cold temperatures. The freeze monitor data is available on our webpage as well. It allows you to track the hours below 32 or 24°F thresholds useful for permafrost development or winter wheat/cover crop damages. You can access this information via the menu in the top left (Menu à Weather à Freeze Monitor) or at mesonet.ksu.edu/weather/freeze



Kansas Mesonet - Hours Below 24 of 2019-12-31 08:04 (CST)

Figure 3. Hours below 24°F as of 8:04 am on 12/31/2019.

Stay warm and safe on these chilly days! Winter has only just begun.

Christopher "Chip" Redmond, Kansas Mesonet Manager
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3. Ag-Climate Update: December 2023

The Kansas Ag-Climate Update is a joint effort between our climate and extension specialists. Every month, the update includes a summary of that month, agronomic impacts, relevant maps and graphs, 1-month temperature and precipitation outlooks, monthly extremes, and notable highlights.

December 2023: The second warmest December since 1895

The average statewide temperature for December was 39.2°F, or 6.0°F above normal. This ranked as the 2nd warmest December out of 129 years of records, dating back to 1895. Only 2021 ranks higher (41.1°F). Divisional anomalies ranged from +4.8°F (west central) to +6.7°F (northeast and east central). Three counties in central Kansas had their warmest December on record: Barton, Rush, and Russell.

The average statewide precipitation for December was 2.13 inches, or 199% of normal. This amount was 1.06 inches above normal and ranked as the 9th wettest December on record. All divisions were above normal, and the month ranked in the top 6 wettest Decembers in each division. South central Kansas had the largest departure from normal (+1.64 inches), but southwest Kansas had the highest percent of normal (297%). Northwest Kansas was the only division not to have a top 20 wettest December.

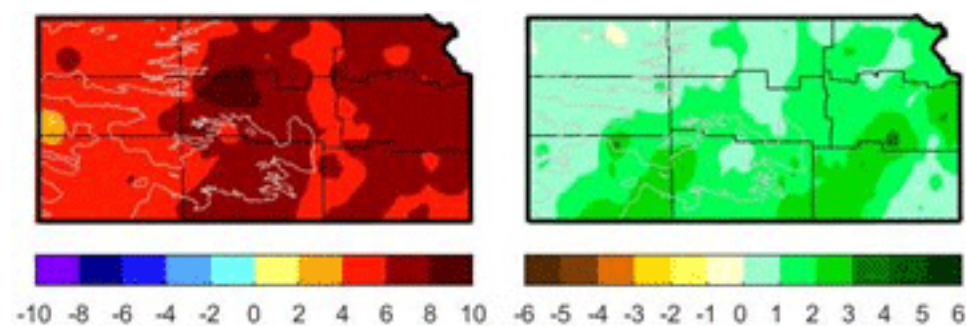


Figure 1. Departures from normal temperature (°F) and precipitation (inches) for December 2023.

View the entire December 2023 Ag-Climate Update, including the accompanying maps and graphics (not shown in this eUpdate article), at <http://climate.k-state.edu/ag/updates/>

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4. K-State Soil Fertility Schools for North Central and Northwest Kansas

With fertilizer being one of the most expensive components of your cropping system, it is increasingly important for producers to manage their agricultural inputs properly. To address the topic of nutrient management, K-State Research and Extension, has scheduled four regional programs during January 2024. These schools have been designed to help producers understand the fertilizer soil relationships to achieve a greater return from fertilizer investment, especially in this farm environment.

January 23 – Smith Center – 9:30 a.m. to NOON – Christian Church

January 23 – Ellsworth – 5:00 p.m. to 7:30 p.m.– 221 W Douglas Recreational Center Meeting Room

January 25 – Goodland – 9:30 a.m. to NOON (MT) – 4-H Building

January 25 – Jennings – 3:00 p.m. to 5:30 p.m. – Community Building (main floor)

Dr. Lucas Haag, K-State NW Region agronomist, Dr. Dorivar Ruiz Diaz, K-State Fertility specialist, and local District Extension Agents will present the schools. Topics will include K-State research updates, soil sampling, using biologicals in your fertility program, fertilizer placement, N and P management updates, drought impacts, and a question-and-answer session. So be sure to bring all your questions with you! 2.5 CCA credits have been applied for.

There is no cost for the schools; however, pre-registration is requested by Friday, **January 19**, for all schools. You can register online at https://kstate.qualtrics.com/jfe/form/SV_cMDQEWUMUu4LP6e, or at your local Extension Office. A minimum of 10 pre-registered producers are needed for each of the schools. Hope to see you there!

Craig Dinkel, Midway District
cadinkel@ksu.edu

Sandra Wick, Post Rock District
swick@ksu.edu

Jeanne Falk Jones, Sunflower District
jfalkjones@ksu.edu

Keith VanSlike, Twin Creeks District
kvan@ksu.edu

K-STATE
Research and Extension

KSU NC/NW Soil Fertility Schools



Tuesday, January 23

Smith Center - 9:30 a.m. to NOON

Meal following

Sponsors: Applequist Mfg. Inc./Farmada
Christian Church

400 W. Hwy 36



Ellsworth - 5:00 p.m. MEAL

Sponsors: AgroLiquid/Ellsworth COOP

5:30 p.m. to 7:30 p.m. (meeting)

Recreational Center Meeting Room

221 W. Douglas



Thursday, January 25

Goodland - 9:30 a.m. to Noon (MT)

Refreshments provided

4-H Building

417 N. Main Avenue

Jennings - 3:00 p.m. to 5:30 p.m.

Refreshments provided

Community Building (main floor)

133 S. Kansas Avenue

Join us at any of the locations in NC/NW Kansas to learn about optimizing your fertilizer applications!

Topics will include Using biologicals in your fertility program; N and P management updates; Application timing and methods along with KSU Research updates.

NO COST to attend, but registration is requested by **January 19** for any of the locations ONLINE at:

https://kstate.qualtrics.com/jfe/form/SV_cMDQEWUMUu4LP6e or the QR code:



2.5 CCA credits applied for. Additional questions contact your local Extension Office.

Midway District: Craig Dinkel
785-472-4442

Post Rock District: Sandra Wick
785-282-6823

Sunflower District: Jeanne Falk-Jones
785-462-6281

Twin Creeks District: Keith VanSike
785-877-5755

K-State Research and Extension is committed to providing equal opportunity for participation in all programs, services and activities. Accommodations for persons with disabilities may be requested by contacting the event contact Craig Dinkel, Sandra Wick, Jeanne Falk Jones or Keith VanSike two weeks prior to the start of the event (January 12) at the phone numbers listed above. Requests received after this date will be honored when it is feasible to do so.

Kansas State University Agricultural Experiment Station and
Cooperative Extension Service
K-State Research and Extension is an equal opportunity provider and employer.

Kansas State University Department of Agronomy

2004 Throckmorton Plant Sciences Center | Manhattan, KS 66506

www.agronomy.ksu.edu | www.facebook.com/KStateAgron | www.twitter.com/KStateAgron

5. Women Managing the Farm Conference set for February 14-16

Women from across Kansas will gather at the 20th Women Managing the Farm Conference in Manhattan, Kansas, February 14-16, 2024. The conference began in 2005 and will feature nationally renowned keynote speakers, in-depth breakout sessions, and the opportunity for women to network with other farmers, rural business leaders, and landowners.

“We are so excited to be hosting our 20th conference this year,” said Sandra Wick, co-chair of the Women Managing the Farm conference planning committee. “WMF is a fantastic event that provides women with the necessary skills, resources and knowledge for success in a competitive agricultural landscape.”

Building on the success of the past 20 conferences, the 2024 edition will **Rise** to new heights. Keynote presentations will be given by Mark Mayfield, Kim Bremmer, and Terrain economist Matt Roberts. The attendees will also be treated to a Master Farmers and Homemakers panel.

Conference sessions are designed to keep women updated on the latest advancements in agriculture and thriving within their rural communities. During the two-day conference, attendees will select from breakout sessions covering many topics, including farm financial planning, production agriculture, balancing farm and life responsibilities, direct-to-consumer and retail businesses, as well as transition planning.

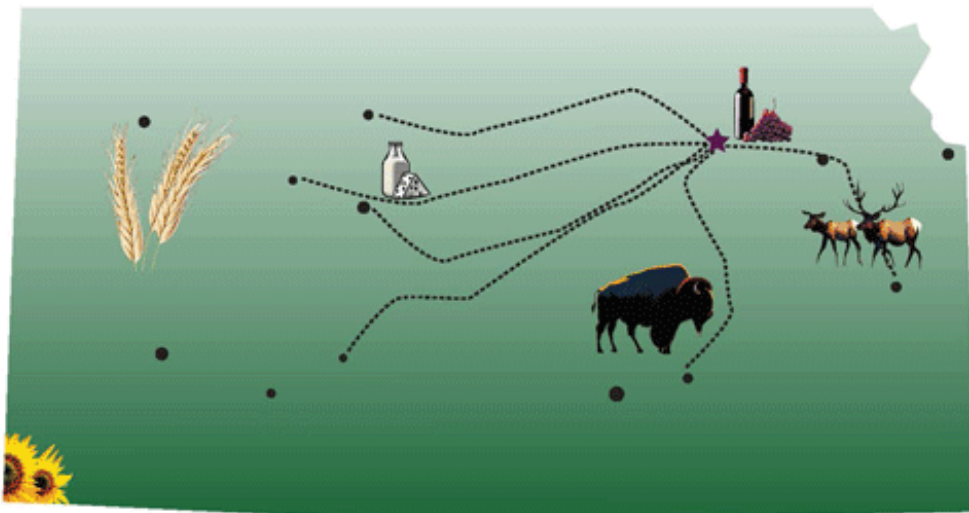
Women across the state are invited to this special 20th-anniversary conference. To extend the opportunity to attend to as many people as possible, Women Managing the Farm is organizing six pre-conference tours in The Sunflower State Showcase. In partnership with local K-State Research & Extension units, attendees can ride a bus from their corner of the state and stop at pre-selected tour locations on their way to Manhattan (Figure 1).

“Whether you are involved in on-farm production, are an off-farm landowner, or part of the agriculture industry as a business professional, WMF has content for every woman involved in ag,” said Lori Rogge, co-chair of the Women Managing the Farm conference planning committee.

Early registration runs through January 15, 2023, at \$175, with scholarships available for those who apply before that deadline. A student rate of \$75 for any high school or college students will also be offered this year. After January 15, registration is \$200. Additional pre-conference sessions are available for \$25, including a session on emotional wellness and the pre-conference tours.

Learn more or register for the Women Managing the Farm Conference at <http://womenmanagingthefarm.com/>. Stay up to date with the latest from the conference on Facebook at <https://www.facebook.com/womenmanagingthefarm>.

The *Sunflower State* SHOWCASE



This year we are excited to offer you a new experience as you make your way to the **2024 Women Managing the Farm** conference! The ride is on us this year. We are offering 6 different **pick-up locations** across the state that have fun tours and stops highlighting rural tourism along the way! Each van will be leaving mid-morning on Wednesday the 14th, and all tours will get you to Manhattan, KS, for the main conference and back home on the 16th.

PICK-UP LOCATIONS

WaKeeney

Good Karma Micro Dairy | Russell
Eagle Ridge Ranch | Abilene

Kinsley

Underground Tunnels | Ellinwood
Eisenhower Library | Abilene

Stockton

North 40 Alpacas | Osborne
MarCon Pies | Lincoln

Hays

South Bend Hemp | Great Bend
Eisenhower Library | Abilene

El Dorado

Pioneer Bluffs | Matfield Green
Hildebrand Farms | Junction City

Garnett

Valley View Elk Ranch | Garnett
456 Wineries | Wamego

Registration Information

Learn more about the pick up locations, tour stops, and the 2024 Women Managing the Farm Conference at womenmanagingthefarm.com/agenda.



womenmanagingthefarm.com



RISE
WOMEN MANAGING THE FARM

6. Updated - Cover Your Acres Winter Conference, January 16-17

[K-State Research and Extension will host the 21st annual Cover Your Acres Winter Conference](#) for crop producers and consultants on January 16 and 17. The conference will take place in the traditional in-person format at the Gateway Civic Center in Oberlin, KS.

Cover Your Acres is a producer-driven meeting focused on new ideas and research-based updates in crop production in northwest Kansas and the Central High Plains region.

The conference, which typically draws more than 400 attendees from Kansas and other states, highlights the latest technology, methods, and conservation practices to improve crop production in the region. This year's conference will feature university specialists and industry representatives discussing what's driving profitability in northwest Kansas farms.

Session topics and speakers

- **Current financial status of NW Kansas farms** – Mark Wood and Glenn Conover
- **Drought-driven insects and emerging pests** – Anthony Zukoff
- **Dryland rotation agronomics and economics** – Lucas Haag
- **Herbicide resistance update for the High Plains** – Sarah Lancaster
- **High Plain weather outlook for 2024** – Jesse Lundquist
- **Keeping weeds on their toes** – Jeanne Falk Jones
- **Phosphorus management – Understanding the how, why, and when in crops and soils** – Dorivar Ruiz Diaz
- **Pivot priorities – A fresh look at sprinkler setup for maximizing effective irrigation** – Joel Schneekloth
- **Sprayer and planter technology advancements** – Ajay Sharda
- **Wheat industry innovation: New markets for wheat** – Evan Backhus
- **Panel discussion: Sorghum weed control and using new herbicide-tolerant sorghums** – Agronomists and seed company representatives

The same programs will be offered on both days of the conference (Figure 1). Participants attending both days will find catching most or all programs easier. On Tuesday evening, the sessions are followed by a social where attendees can visit with industry representatives and conference speakers while enjoying refreshments.

Platinum sponsors for the 2024 conference include K-State Research and Extension, AKRS Equipment, LDI, SurePoint Ag Systems, 4G Farm and Sales, and Hoxie Implement.

Online registration is still open. After January 10, and for walk-ins, the cost is \$80 per day. The conference fee includes lunch, morning and afternoon refreshments and educational materials. The program will offer ten continuing education unit (CEU) credits for Certified Crop Advisors and three 1A for Commercial Applicators credit.

To view the conference details, lodging accommodations, and online registration, visit www.northwest.ksu.edu/coveryouracres. For questions, call 785-462-6281.

Cover Your Acres



Winter Conference



January 16 and 17, 2024
Full Program Offered Each Day
The Gateway, Oberlin, KS

2024 SPEAKER TOPICS

Current Financial Status of NW Kansas Farms: Using data from northwest Kansas farms, we take a look at opportunities for profitability and where producers should be alert for possible concerns.

Drought Driven Insects and Emerging Pests: Drought conditions favor certain insect species and can have multi-year effects in insect pressure. Will also cover new and evolving pests that producers should be aware of.

Dryland Rotation Agronomics and Economics: A look at performance of various crop rotations from long-term trials with insight into the key drivers in productive dryland rotations.

Herbicide Resistance Update for the High Plains: Resistance is leading to reliance on a smaller number of herbicides. A look at emerging issues and how our management can and should adapt.

High Plains Weather Outlook: El Nino and La Nina, what does it mean for the Tri-State Region, outlook for 2024, and a crash course in storm spotting.

Keeping Weeds on Their Toes: The latest in label changes, product updates, trial data, and most importantly, using that to make a plan

Phosphorus Management: Understanding the how, why, and when: Availability in crop and soil systems is often misunderstood, we will revisit the basics and how they can help you make better in-field decisions.

Pivot Priorities: Sprinkler Setup for Effective Irrigation: How the interaction of sprinkler setup and management play a role in maximizing effective irrigation, and thus productivity and profitability.

Sprayer and Planter Tech Advancements? Research update showcasing how producers can make the most of the new technologies available on the market.

Wheat Innovation—New Uses and Markets: New demand for wheat based food ingredients as led to new processing plants in North-Central Kansas. What does this mean for wheat demand?

Sorghum Weed Control Strategies A panel discussion with agronomist and seed co. reps on the keys to effective weed control in sorghum.

Room 1		Room 2		Room 3		Room 4	
7:45	8:15	Registration					
8:15	8:20	Welcome					
8:30	9:20	Current Financial Status of NW KS Farms ¹ (M. Wood and G. Conover)	Wheat Innovation: New Uses and Markets ¹ (E. Backhus)	Phosphorus—How, when, and why in crops & soils ² (D. Ruiz-Diaz and M. Bourns)			
9:30	10:20	Sprayer and Planter Tech Advancements ² (A. Sharada)	High Plains Weather Outlook ¹ (J. Lundquist)	Pivot Priorities for Effective Irrigation ¹ (J. Schneekloth)			
10:20	10:50	View Exhibits					
10:50	11:40	High Plains Herbicide Resistance Update ^{1,2} (S. Lancaster)	Dryland Rotation Agronomics and Economics ³ (L. Haag)	Drought Driven Insects and Emerging Pests ^{1,2} (A. Zukoff)		Industry Session (ServiTech)	
11:50	12:40	Keeping Weeds on Their Toes ^{1,2} (J. Falk Jones)	Pivot Priorities for Effective Irrigation ¹ (J. Schneekloth)	Lunch			
12:50	1:40	Phosphorus—How, when, and why in crops & soils ² (D. Ruiz-Diaz and M. Bourns)	High Plains Herbicide Resistance Update ^{1,2} (S. Lancaster)				
1:50	2:40	Dryland Rotation Agronomics and Economics ¹ (L. Haag)	Sprayer and Planter Tech Advancements ² (A. Sharada)	Keeping Weeds on Their Toes ^{1,2} (J. Falk Jones)		Industry Session (PivotBio)	
2:40	3:10	View Exhibits					
3:10	4:00	Sorghum Weed Control Strategies and Technologies Discussion Panel	Drought Driven Insects and Emerging Pests ^{1,2} (A. Zukoff)	Wheat Innovation: New Uses and Markets ¹ (E. Backhus)	The Role of Humics in Soil Health (4G Farm and Sales)		
4:10	5:00	High Plains Weather Outlook ¹ (J. Lundquist)	Current Financial Status of NW KS Farms ¹ (M. Wood and G. Conover)				

Tuesday: Social hour with hors d'oeuvres begins at 5:00
¹ CCA CEUs applied for.
² Commercial Applicator CEUs applied for.



Figure 1. Conference agenda for 2024 Cover Your Acres.

Lucas Haag, Area Agronomist, Northwest Research-Extension Center, Colby
lhaag@ksu.edu

7. 2024 Alfalfa School is set for February 13 in Great Bend

K-State Research and Extension and the Kansas Forage and Grassland Council (KSFGC) are hosting the 2024 Alfalfa School on Tuesday, February 13. The event will take place at the Burnside Room, 1214 Stone Street in Great Bend, and will run from 8:30 a.m. to around 3:00 p.m.

This year's event will feature several sessions covering a myriad of topics related to alfalfa production. The program will offer five continuing education unit (CEU) credits for Certified Crop Advisors and one Commercial Applicators credit. The school is free to attend for current Kansas Forage and Grassland Council members. The cost is \$45 for non-members and is payable at the door. This fee covers the cost of participation plus membership to KSFGC.

Lunch will be provided. Please RSVP by Wednesday, February 7, by calling 620-793-1910 or email aboor@ksu.edu.

Session topics

- New technologies in alfalfa production
- Management practices for high alfalfa yield
- Alfalfa fertility management
- Important alfalfa pests and their control
- Alfalfa use in the beef industry
- Alternative annual legumes for western Kansas
- Alfalfa management under drought and irrigated conditions

2024 Alfalfa School

K-State Research and Extension
Kansas Grassland and Forage Council

8:30 a.m. - 3:00 p.m.

Tuesday, February 13th

Burnside Room, 1214 Stone Street, Great Bend, KS

Topics

- New technologies in alfalfa production
- Management practices for high alfalfa yield
- Alfalfa fertility management
- Important alfalfa pests and their control
- Alfalfa use in the beef industry
- Alternative annual legumes for western KS
- Alfalfa management under drought and irrigated conditions

Speakers

- Industry panel
- Romulo Lollato
- Dorivar Ruiz Diaz
- Anthony Zukoff
- Justin Waggoner
- Nick Detter
- John Holman

This event will offer 5 CCA CEUs and one Commercial Applicator credit.

The event is free to Kansas Forage and Grassland Council members, \$45.00, payable at the door for non-members. This cost warrants meeting participation plus membership to KSFGC.



Lunch will be provided.
Please **RSVP** by **Wednesday February 7th** by calling
620-793-1910 or email aboor@ksu.edu



Kansas State University is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision, or hearing disability, contact Pawnee County Extension at 620-285-6901. **Kansas State University Agricultural Experiment Station and Cooperative Extension Service.** K-State Research and Extension is an equal opportunity provider and employer.

8. K-State Corn and Soybean Schools to be held Jan. 16-19, 2024

In January 2024, look for a new format for the traditional K-State Corn and Soybean Winter Crop Schools. K-State Research and Extension, in collaboration with Kansas Corn and Kansas Soybean, has combined the schools for a whole-day program covering both crops.

Online registration is open! Please visit <https://kscorn.com/schools/> and get signed up today!

2024 K-State Corn and Soybean Crop Schools

- **January 16 (Tuesday) – Parsons**
K-State Southeast Research and Extension Center
- **January 17 (Wednesday) – Hesston**
Agco Corporation
- **January 18 (Thursday) – Garden City**
Corteva Agriscience Research Center
- **January 19 (Friday) – Olathe**
John Deere Ag Marketing Center

Participant check-in will begin at 8:30 a.m. at each location with the program starting at 9:00 a.m. The school will wrap up around 3:00 p.m. Morning refreshments and a hot lunch will be provided. CCA and Commercial Pesticide Applicator credits have been applied for. Save the date for one of the locations near you!

Each school will feature a range of region-specific topics covering corn and soybean production. The final agendas for each location will be shared in an upcoming eUpdate. Some of the topics include:

- Agronomics for corn and soybean production
- Corn and soybean disease update
- Carbon credits
- Updates from the Kansas Mesonet
- Market update
- Insect pressure update
- Planter technology
- Weed control
- Soil fertility
- Irrigation for corn and soybean crops

The poster features a central white text area flanked by two vertical images. The left image shows a close-up of green soybean pods on a stem. The right image shows a field of young corn plants with green leaves. The central text is set against a dark green background. At the top, it reads "2024 KANSAS CORN & SOYBEAN SCHOOLS" in white and green. Below this is a logo for "KANSAS CORN K-STATE" with a small graphic of a corn plant. The registration information is listed in white text: "REGISTER AT KSCORN.COM/SCHOOLS", "SIGN-IN BEGINS AT 8:30 A.M.", "SPEAKERS BEGIN AT 9 A.M.", and "SCHOOLS WRAP UP AT 3 P.M.". The dates and locations are listed in white text: "Jan. 16 - Parsons", "Jan. 17 - Hesston", "Jan. 18 - Garden City", and "Jan. 19 - Olathe".

**2024 KANSAS
CORN & SOYBEAN
SCHOOLS**

KANSAS CORN K-STATE

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