



NEWSLETTER



From the Director's Desk



This lingering snow and ice in the north end of the county has this song popping in my head: Oh, the weather outside is frightful. But the fire is so delightful. And since we've no place to go. Let it snow! Let it snow! Let it snow! I'm hopeful by the end of January the snow and ice will have all melted and we will be walking instead of skating across our farmstead. This is the longest I can remember having snow and ice hanging on and the most days my children have been out of school since they first started!

It's only fitting as we roll into February, love is in the air...at least around our place with calving season kicking off! While some farmers and ranchers won't start their spring birthing season until March, many are well on their way with the arrival of lambs, kids (goats), calves and other farm animals. Farmers and ranchers aren't getting the breaks during this weather. They are still out caring for and tending to their livestock no matter what the weather is! The sunshine forecast, combined with the cuteness of new offspring, though can sure put a smile on anyone's face and give hope for a brighter day and tomorrow.

This time of year signals spring is around the corner and warmer days are ahead. Flowers will be blooming, birds chirping and the days will once again be getting longer. Those thoughts sure make me want to jump for joy and spring ahead! Many of you sprung into 2025 with a vast array of goals. If you are still going strong, congratulations! If you have fallen off, it's never too late to get back on board. Like Henry Ford quipped: "Failure is simply the opportunity to begin again, this time more intelligently." Whatever the reason for not being able to achieve your goals, dive back in and keep putting one foot in the front of other. We learn from not giving up and working to find ways to achieve our goals. Lessons learned can be the best teacher to keep us moving forward.

As we welcome in the shortest month of the year, I challenge you to embrace the moments that you are presented with it. Look for the positive, find reasons to smile and let the sun shine on you. Wishing you the best month!

~Charlene

Inside this

Edition:

- 1 From the Director's Desk
- 2 Upcoming Events
- 6 Available Services
- 7 Ag Talk
 - Farm & Ranch Transition conference
- 8 Ag Talk
 - Pasture Rental Rates and Leasing Considerations
- 10 Ag Talk
 - Time to Fertilize Fields of Brome or Fescue
- 11 Ag Talk
 - Calving and Scours
- 13 Ag Talk
 - Learning Opportunities
- 14 Find Your Balance
 - Practicing Kindness Improves Health
- 16 Find Your Balance
 - Popular Walk Kansas Program Nears 25th Year
- 18 Garden Gossip
 - Starting Seeds at Home (Part 1)
- 21 Garden Gossip
 - Planning the Garden
- 23 Garden Gossip
 - February Gardening Calendar
- 25 Garden Gossip
 - Lawn and Garden Show
- 26 4-H
 - Celebrating African American Pioneers in 4-H
- 28 4-H
 - IPM Insect Art Contest
- 29 4-H
 - School Enrichment Programs

Upcoming Events

February

						①
②	③ Winter Greens & Winter Blues - El Dorado Library 6:00 p.m.	④ Extension Council Board Meeting 6:30 p.m. Women in Agriculture 5-8 p.m.	⑤ Garden Hour 12 p.m.	⑥	⑦	⑧ Rain Barrel Clinic - Andover Library 9:30 a.m.
⑨	⑩	⑪ Women in Agriculture 5-8 p.m. 4-H Council	⑫ Living Well Wednesday 12 p.m. Seed Starting Class - El Dorado Library 9:30 a.m.	⑬ Winter Greens & Winter Blues - Andover Library 6:00 p.m.	⑭	⑮
⑯	⑰ HAPPY Presidents Day CLOSED	⑱ 4-H/FFA YQCA	⑲	⑳	㉑	㉒ Rain Barrel Clinic - El Dorado 9:00 a.m. 4-H/FFA Beef Weigh-In
4-H Citizenship in Action						
㉓	㉔	㉕	㉖ Farm & Ranch Transition Conference - Wichita Burn School - 9:30 a.m. - 3 p.m.	㉗	㉘	

Butler County Extension Office
 206 North Griffith
 Suite A
 El Dorado, Kansas 67042
 (316)321-9660

Hours

Monday - Thursday
 7:30 a.m. - 5:00 p.m.

Friday
 7:30 a.m. - 11:30 a.m.

WINTER GREENS AND WINTER BLUES

Monday, February 3, 2025
 6:00 p.m.
Bradford Memorial Library
 611 S. Washington, El Dorado 67042

The long winter months are upon us. Longer hours of darkness coupled with the colder temperatures can bring feelings of "winter blues."

Join in an interactive program with Bonnie Brewer and Calla Edwards as they share tips to prevent those winter blues from sneaking up on us to maintain positive mental health.

Together we will explore house plants, breathing techniques and so much more!

K-STATE Research and Extension
 Butler County

BRADFORD MEMORIAL LIBRARY

K-State Research and Extension 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 for communication (e.g., Braille, large print, audio tape, and American Sign Language), may be requested by contacting the event contact, Bonnie Brewer four weeks prior to the start of the event at 316-321-9660 or bbrewer@ksu.edu. 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. K-State Research and Extension is an equal opportunity provider and employer.

March

						① 4-H Jr. Swine Producer Day - Manhattan
② 4-H Day	③	④ Extension Council Board Meeting 6:30 p.m.	⑤ Garden Hour 12 p.m.	⑥	⑦ K-State's Cattlemen's Day	⑧
⑨	⑩	⑪ Youth Lawn Mowing Clinic	⑫ Living Well Wednesday 12 p.m.	⑬ 4-H/FFA YQCA	⑭	⑮
⑯	⑰	⑱	⑲	⑳ 4-H State Horse Judging Contest - Equifest	㉑	㉒ 4-H Super Saturday Judging Event - Colby 4-H Jr. Meat Goat Producer Day - Manhattan
㉓	㉔	㉕	㉖	㉗	㉘	㉙
㉚ Walk KS Begins	㉛					
Regional 4-H Day						

Upcoming Events



WINTER GREENS AND WINTER BLUES

Thursday, February 13, 2025
6:00 p.m.
Andover Public Library
1511 E Central Ave, Andover, KS 67002

The long winter months are upon us. Longer hours of darkness coupled with the colder temperatures can bring feelings of “winter blues.”

Join in an interactive program with Bonnie Brewer and Calla Edwards as they share tips to prevent those winter blues from sneaking up on us to maintain positive mental health.

Together we will explore house plants, breathing techniques and so much more!

Email friendsandoverlibrary@gmail.com to register!

K-STATE Research and Extension
Butler County

ANDOVER PUBLIC LIBRARY
FRIENDS

K-State Research and Extension 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 for communication (e.g., Braille, large print, audio tape, and American Sign Language), may be requested by contacting the event contact: Bonnie Brewer four weeks prior to the start of the event at 316-321-9660 or bjbrewer@ksu.edu. 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.
K-State Research and Extension is an equal opportunity provider and employer.



Maximizing Water Efficiency Through Drip Irrigation

Wednesday, February 5th 12:00PM -1:00PM CST

Drip irrigation is an effective, easy-to-install, and widely available method for enhancing landscapes while conserving water. It delivers water directly to the root zone, achieving over 90% efficiency compared to 50-70% for traditional sprinklers. Join Gregg Eystone, Riley County Horticulture Agent, to explore water conservation practices and learn more about the benefits of drip irrigation.



Register here!

Please register for this free Zoom Webinar at: ksre-learn.com/KStateGardenHour



These workshops are an opportunity for producers and small food businesses to learn more about selling their products through direct-to-consumer sales and other local market opportunities.

Kansas Local Foods is hosting Local Food Producer Workshops in collaboration with the Kansas Department of Agriculture and the Kansas Center for Sustainable Agriculture and Alternative Crops.

LOCATIONS:

- Manhattan, January 31
- Wichita, February 1
- Olathe, February 7
- Chanute, February 21
- Hays, February 28
- Garden City, March 28

VIRTUAL SESSION:

February 7 (English and Spanish)

For additional details and to register visit: ksre-learn.com/food-producer-workshops



COST:

- \$25 until 1 week prior
- \$30 late registration and at the door



Kansas State University Agricultural Experiment Station and Cooperative Extension Service
K-State Research and Extension 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 for communication (e.g., Braille, large print, audio tape, and American Sign Language), may be requested by contacting the event contact (Rebecca McMahon) four weeks prior to the start of the event (Dec. 31, 2024 - Feb. 28, 2025) at rmcmahon@ksu.edu or 316-361-6779. 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.
K-State Research and Extension is an equal opportunity provider and employer.



Establishing a Native Prairie Stand at Home

Wednesday, March 5th 12:00PM -1:00PM CST

Transform your land into a thriving prairie habitat! Join Amy Keigher, Johnson County Natural Resources Extension Agent, as she guides you through the process of establishing a home prairie stand. Learn about the benefits of prairie landscapes, plant selection, and maintenance techniques to create a beautiful, sustainable ecosystem right at home.



Register here!

Please register for this free Zoom Webinar at: ksre-learn.com/KStateGardenHour



Garden Hour Webinars:

These class are offered online via Zoom at Noon. For more information on the Garden Hour series or to register visit here: <https://hnr.k-state.edu/extension/consumer-horticulture/garden-hour/>

Upcoming Events



SAVE THE DATE BURN SCHOOL

MORE INFORMATION COMING SOON!

WEDNESDAY,
FEBRUARY 26TH

EL DORADO, KS
9:30 A.M. - 3:00 P.M.

TOPICS:

REASONS FOR BURNING
BURNING FOR WILDLIFE
NOTIFICATIONS, REGULATIONS & PERMITS
PLANNING, PRECAUTION AREAS, FUELS, FIREBREAKS & MORE

316-321-9660

cmmiller1@ksu.edu



K-State Research and Extension is an equal opportunity provider and employer.



YOUTH LAWN MOWING CLINIC

Tuesday, March 11, 2025
Butler Community Building
200 N. Griffith - El Dorado, KS
Registration Begins at 4:30 p.m. Clinic Will Be 5:00-8:00 p.m.
Pizza will be provided

You Will Learn:

- ✓ Lawn Mower Safety
- ✓ Lawn Mower Maintenance
- ✓ Proper Care for Various Types of Turfgrass
- ✓ Business Skills Necessary to Run Your Own Lawn Mowing Business

PRE-REGISTRATION IS REQUIRED

CLINIC COST IS \$10

This clinic is designed for youth in 5th through 9th grade

REGISTER NOW

316-321-9660
callae@ksu.edu



K-State Research and Extension 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 for communication (e.g., Braille, large print, audio tape, and American Sign Language), may be requested by contacting the event contact Calla Edwards four weeks prior to the start of the event February 11, 2025 at 316-321-9660 or callae@ksu.edu. 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. K-State Research and Extension is an equal opportunity provider and employer.

Upcoming Events

RAIN BARREL CLINIC

Andover Public Library
1511 E Central Ave, Andover, KS
Clinic is free!
Make your own rain barrel for \$50!

SATURDAY,
FEBRUARY
8TH AT
9:30 A.M.



K-STATE
Research and Extension

Butler County

- ✓ How to make a rain barrel
- ✓ How to care for a rain barrel
- ✓ Plants for a Resilient Landscape
- ✓ How to reduce water use in the garden and landscape

RSVP FOR A RAIN BARREL BY
JAN. 30TH
CALL (316) 321-9660

K-STATE RESEARCH AND EXTENSION IS COMMITTED TO PROVIDING EQUAL OPPORTUNITY FOR PARTICIPATION IN ALL PROGRAMS, SERVICES AND ACTIVITIES. PROGRAM INFORMATION MAY BE AVAILABLE IN LANGUAGES OTHER THAN ENGLISH. REASONABLE ACCOMMODATIONS FOR PERSONS WITH DISABILITIES, INCLUDING ALTERNATIVE MEANS FOR COMMUNICATION (E.G., BRAILLE, LARGE PRINT, AUDIO TAPE, AND AMERICAN SIGN LANGUAGE) MAY BE REQUESTED BY CONTACTING THE EVENT CONTACT CALLA EDWARDS TWO WEEKS PRIOR TO THE START OF THE EVENT AT 316-321-9660 OR CALLA@KSRE.EDU. 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. K-STATE RESEARCH AND EXTENSION IS AN EQUAL OPPORTUNITY PROVIDER AND EMPLOYER.

RAIN BARREL CLINIC

Butler County Community/4-H Building
200 N Griffith, El Dorado
Clinic is free!
Make your own rain barrel for \$50!

SATURDAY,
FEBRUARY
22ND AT
9:00 A.M.



K-STATE
Research and Extension

Butler County

- ✓ How to make a rain barrel
- ✓ How to care for a rain barrel
- ✓ Plants for a Resilient Landscape
- ✓ How to reduce water use in the garden and landscape

RSVP FOR A RAIN BARREL BY
FEB. 7TH
CALL (316) 321-9660

K-STATE RESEARCH AND EXTENSION IS COMMITTED TO PROVIDING EQUAL OPPORTUNITY FOR PARTICIPATION IN ALL PROGRAMS, SERVICES AND ACTIVITIES. PROGRAM INFORMATION MAY BE AVAILABLE IN LANGUAGES OTHER THAN ENGLISH. REASONABLE ACCOMMODATIONS FOR PERSONS WITH DISABILITIES, INCLUDING ALTERNATIVE MEANS FOR COMMUNICATION (E.G., BRAILLE, LARGE PRINT, AUDIO TAPE, AND AMERICAN SIGN LANGUAGE) MAY BE REQUESTED BY CONTACTING THE EVENT CONTACT CALLA EDWARDS TWO WEEKS PRIOR TO THE START OF THE EVENT AT 316-321-9660 OR CALLA@KSRE.EDU. 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. K-STATE RESEARCH AND EXTENSION IS AN EQUAL OPPORTUNITY PROVIDER AND EMPLOYER.

Butler County
H.E.A.L.
Health. Education. Action. Lifestyle.

EMPOWERING PEOPLE TO LIVE A HEALTHIER LIFESTYLE THROUGH EDUCATION AND ACTION

PROMOTING HOLISTIC HEALTH BY INCORPORATING RESEARCH BASED EDUCATION INTO PRACTICAL DAILY LIVING.

K-STATE Research and Extension | Butler County

206 N Griffith, Suite A
El Dorado, KS 67042
(316) 321-9660

South central mental health
HELPING TO SHAPE PROMISING FUTURES

221 King St, Andover, KS 67002
524 N Main St, El Dorado, KS 67042
2821 N Brookside Dr, Augusta, KS 67010
(316) 733-5047 ext 515 OR 528

K-State Research and Extension is an equal opportunity provider and employer.



for more happily, ever afters...

The Strong Couples Project

- ✓ Participate in a 6-session online program scientifically shown to strengthen relationships
- ✓ Video calls with trained coach to help maximize program impact
- ✓ No cost to enroll and chance to win \$25 Amazon gift card for completing program surveys

To learn more and enroll, please visit go.illinois.edu/StrongCouples

Available Services

Bad Odor?

We have a breath of fresh air for you! K-State Research and Extension - Butler County offers Nilodor cotton balls to help eliminate the odor in your most desperate areas. Just 1 drop can neutralize the air in a 10'x10' room. Costing only \$0.10 per cotton ball, this is an extremely cost effective solution to your most smelly situations.



Soil Testing

Whether you are preparing your garden for spring planting or wanting to make sure your fields are ready to produce a bumper crop, we can help. Bring your soil into the K-State Research and Extension - Butler County Office today and we will ship it to K-State Soil Labs for testing. Each test comes with personal recommendations put together by our Agriculture and Horticulture Professionals. Cost will vary depending on tests requested.

For more information on Horticulture Soil Testing, visit our website here:

<https://www.butler.k-state.edu/horticulture/Soil%20Tests.html>

For more information on Agriculture Soil Testing, visit our website here: <https://www.butler.k-state.edu/agriculture/soiltest/untitled.html>



Ag Talk

Charlene Miller

Director/Agriculture Agent

cmmiller1@ksu.edu

<https://www.butler.k-state.edu/agriculture/>



SAVE THE DATE

February 25, 2025 - Colby
February 26, 2025 - Wichita
February 27, 2025 - Lawrence

Join Kansas State University Department of Agricultural Economics' Office of Farm and Ranch Transition and K-State Research & Extension for a conference to help prepare for the transition to the next generation. This conference is for any farm business in any stage of planning for a transition to either family or non-family.

For more updates, check AgKansitions.org or Agmanager.info

This material is based upon work supported by the U.S. Department of Agriculture, under agreement number FSA23CPT0013658. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture. In addition, any reference to specific brands or types of products or services does not constitute or imply an endorsement by the U.S. Department of Agriculture for those products or services. USDA is an equal opportunity provider, employer, and lender.

Pasture Rental Rates and Leasing Considerations



The time of year has arrived when we start receiving the hot topic question, “What is the current pasture rental rates.” Every lease and every pasture is different so given a one size price fits all just is not possible. However, I can provide you with some guidelines and survey results that will provide you with a place to start negotiations between a landlord and tenant. The latest 2023 Bluestem Pasture report is one I like to reference and is updated every 2 years. The sources for survey results are the Kansas Ag

Statistics site on Kansas Land Values and Cash Rents. Another source is the County level land values and rents, found at the KSRE Ag Econ (Agmanager.info) site. When working on agreements you should consider the averages and the local markets as the place to start negotiations, but don’t forget there are many other considerations to keep in mind.

Type and condition of the grass:

The cool season grasses such as smooth brome or fescue may have an increased value because of the higher carrying capacity, but that is often offset by the cost of the fertilizer that is necessary to get the increased forage production. The arrangements for fertilization and the cost are usually the responsibility of the tenant. The condition of the pasture is a major factor in determining the carrying capacity and corresponding value of the pasture. While every land owner wants to believe that their grass is above average or better, an honest evaluation needs to be made by the landowner and tenant when negotiating the price. If the condition is below average and needs to have a light stocking rate to enhance improvement, the landowner must be willing to discuss a less than average price. Both parties need to take responsibility for good stewardship of the grassland. Weather also plays a major factor.

Pasture Rental Rates and Leasing Considerations Cont.

Fencing, brush and weed control:

Fencing materials are normally provided by the landowner and normal repairs by the tenant. If there are extensive repairs needed and provided by the tenant, compensation may be provided in the form of a lowered rent price. The same considerations need to be made with brush and weed control. The bottom line is that if the tenant is doing things to increase the long term value of the grass and property, that needs to be considered in the price negotiations.

Length and time of grazing season and types and size of cattle:

The cattle being grazed on a summer ½ season/double stock, full season/normal stock, winter graze, or some variation will all have different values. Price will be negotiated accordingly. All of these factors need to be considered when setting stocking rates. Pasture condition can be decreased if the number of animals or pounds of beef exceeds the recommended stocking rates.

Who is providing the care of the animals:

While the resources will often list a price difference for “with care” and “without care” on a per head basis, it is seldom listed for a per acre basis.



Compare apples to apples:

Landowners may be approached with an offer that is higher than they are currently receiving. If there is a good relationship with the current tenant and the pasture is in good condition, make sure the better offer is with the same stocking rate and considerations as the current one.

The best lease:

is the one that both parties discuss all conditions, put it in WRITING, and sign it.

Ag Talk

Time to Fertilize Fields of Brome or Fescue

This information pertains to Agriculture production fields and not your yards. If you have not yet applied nitrogen for spring production you should consider making plans to do so. The most effective use of the nitrogen will be realized if it is applied by the end of February, but you will still get good use if applied by mid-March. Nitrogen amounts for your cool season grasses is directly related to your yield potential and goals. Putting on more nitrogen than the cool season grass can use will not only cause a waste of money, but it will result in N run-off/leaching and provides fertilizer for the summer annual weeds.



The average yield in Butler County is 2 ton per acre. This can be achieved with 60 - 70 units of nitrogen if the field has an adequate level of phosphorus and PH. 50 units of N per acre will produce 1 3/4 ton, while 80 - 90 units are required if you have a 3 ton/acre potential. If the cool season grass is being used for grazing, 70 - 90 pounds of nitrogen may be required. Phosphorus can be a limiting factor to cool season grass production. Low P levels will result in a weaker plant that does not fully

utilize the soil, water and nutrients. This will lower the yield potential. The optimum P level for cool season grasses is at least 15 ppm. A soil PH below 5.6 will also hinder production. A soil test that represents the top 4 inches of the field is the only way to determine the amount of Phosphorus and the PH of soil. Soil with adequate P levels requires 25 to 30 pounds of P annually to replace the amount removed with the plant. Lower levels will require added P to raise test levels. A soil PH level below 5.6 will require a top-dress application of 2000 pounds ECC of lime. Potassium is also important but is seldom required in Butler County because of our high soil levels of that nutrient.

Testing the soil – Find out what you really need to apply

As mentioned above, a soil test for ag production established grass stands should represent the top 4 inches of the field. This is accomplished by taking core samples (approx. 1 inch in diameter) from 12 to 15 locations in the field. Soil probes are available to check out from our office with a deposit required. All information for soil testing can be found on our website at: <https://www.butler.k-state.edu/agriculture/soiltest/untitled.html>



Ag Talk

Calving and Scours

Additional calving information provided by Extension Beef Specialists Sandy Johnson and Dr. AJ Tarpoff.

You should develop standard operation procedures for calving and providing assistance. Include list and contact information for individuals who can provide more expertise or assistance as required. The following are suggestions on when to intervene.

If you suspect the cow has been in Stage 1 over 8 hours. Stage 1 characteristics; restlessness, pain, lie down and get up frequently, seek isolation (signs more apparent in first-calf heifers than mature cows).

Stage 2 –

- Water sack visible for 2 hours and cow is not trying
- Cow trying for over 30 minutes and no progress is being made
- Cow has quit trying for over 15-20 minutes after a period of progress
- Cow or calf showing excessive fatigue or stress (swollen tongue or excessive bleeding)
- You can observe the calf presentation is other than two front feet and head first.

When Calving Starts

- Calves should have colostrum within first 2 hours of life, if calf can't get colostrum from dam, take steps to give colostrum within 4-6 hrs of birth.
- Colostrum intake should be 10% of calf's body weight, 0.5 – 1 gallon. First choice is for calf to nurse a bottle so that colostrum goes directly to the abomasum. Don't over feed to encourage calf to nurse on its own, 1.5-quart dose good starting point.
- Handle healthy calves before sick calves and avoid exposing newborns to contaminants on clothing or materials used on sick calves.
- If a cow is brought in for any amount of calving assistance, make sure she leaves with a clean udder.

Work towards developing a notebook that has all the standard operating procedures for your operation. Include things like yearly vaccination plans, treatment protocols, calving and calving assistance protocols, euthanasia protocols, drought management plans and weather emergency plans. This will be a valuable resource when communicating with employees new and old, when reviewing what needs to be improved for the next year or if a health emergency forces someone else to take care of the herd.



Calving and Scours Cont.

It's also important to be vigilant about calf scours. Dr. Tarpoff notes: Neonatal calf scours (diarrhea) is a multifactorial issue. The risk and occurrence can change year to year based on many different factors. Typically, early spring calving due to the cold, wet and windy weather, creates some unique challenges in combating calf scours for cattle producers.

Causes - Scours can be initiated by infectious agents such as viruses, bacteria, and even protozoan parasites. It is important to note that most of the pathogens of concern are shed at low levels through the feces by healthy members of the resident cowherd. Most of the disease and death loss related to scours occurs within the first month of age. The bacteria, *E. coli*, is a common culprit within the first 5 days of life. Rota virus, Corona virus, and cryptosporidium (protozoa) are commonly identified in cases between 1 week and 3 weeks of age. Mixed infectious with more than 1 pathogen commonly occurs as well. Salmonella and Clostridial infections can also occur with minimal clinical signs before acute death.

Nutritional causes of neonatal diarrhea can also occur. "Milk Scours", as it is often referred to, is a non-infectious cause of white loose manure. This tends to occur after a cow/calf separation event. The hungry calves tend to over eat leading to undigested milk passing through the digestive tract. The intestinal disruption is often self-limiting and clears up within a day or two without treatment.



Clinical Signs - The most common clinical signs of calf scours are watery stool, lethargy, and dehydration.

- Diarrhea: The color of the stool can be brown, green, yellow, or grey in color. Tail and the rear legs may be covered in wet manure. Bloody stools can also be seen with Salmonella, Clostridial, or coccidiosis.
- Lethargy: noted by decreased desire to nurse, depressed attitude, and reluctance to stand. Staggered walk may also occur.
- Dehydration: identified by having sunken eyes. Another effective means to measure dehydration is by tenting the skin of the calf. A well hydrated calf's skin will snap back flat after pinching it. If it takes 1-3 seconds, the calf would be ~6-8% dehydrated. If the skin tent takes up to 5 seconds, the calf would be ~8-10% dehydrated. The severe loss of fluids also interrupts the calf's acid/base and electrolyte balances.

You are encouraged to visit with your local veterinarian for treatment options.

Ag Talk

Charlene Miller

Director/Agriculture Agent

cmmiller1@ksu.edu

<https://www.butler.k-state.edu/agriculture/>

K-State Agricultural Economics presents

Finances and the Farm: An online class to enhance your farm management skills

An applied approach to developing and using farm financial statements for management decision-making for farmers and ranchers of all types

**This is a self-paced course you can take when
it is convenient for you!**

This course can be taken for education only or to fulfill FSA borrower's requirements.

Seven Lessons: Recordkeeping, Balance Sheet, Income Statement, Enterprise Budgets, Cash Flow, Goal Setting and Managing Family Living Expenses

Participants will:

- Understand the structure of a balance sheet, income statement, enterprise budgets, and cash flow
- Choose either Cattle & Crops or CSA & Farmers Market case farm to complete quizzes to check understanding and practice using these financial statements in a real-world setting
- Be prepared to use financial management techniques for their own operation
- Set goals for their operation

- Learn how to make changes to avoid financial difficulties

Registration Fee:

- \$300 for FSA credit class
- \$100 for education only



Approved for FSA Borrower's Training Credits in Colorado, Illinois, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, and Wyoming

Taught by Robin Reid, K-State Extension Farm Economist, and LaVell Winsor, K-State Farm Analyst

**Register online for FSA Credit or Education Only:
www.AgManager.info/Events**

KANSAS STATE
Agricultural Economics



National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE



K-STATE
Research and Extension

Funding for this program was provided in 2017 by the South Central Extension Risk Management Education Center and the USDA National Institute of Food and Agriculture under Award Number 2017-20022-346094. 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 Robin Reid, (785) 532-8964 or Director of Affirmative Action, Kansas State University, (785) 532-4800. K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Act of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Council, Extension Districts, and United States Department of Agriculture Cooperating. L. Ernie Masten, Director.

K-State Agricultural Economics Presents:

Risk Management on the Farm

Online, on-demand course to take when it is convenient for you.

Taught by Robin Reid, Extension Farm Economist, and LaVell Winsor, K-State Farm Analyst

Five Lessons: Determining Cost of Production, Crop Insurance, Crop Marketing, Farm Programs (ARC/PLC), and Beef Cow/Calf Risk Management

Register online by using the link below:

www.AgManager.info/Events

Course Description:

- Learn principles of determining cost of production, developing a marketing plan, evaluating crop insurance options, and participating in farm programs (ARC/PLC)
- Participants will work with a case farm to apply these topics to a real-world farming operation through hands-on activities.
- The goal of this class is to acquire risk management skills that can be applied directly to a farming operation.
- The bulk of the course focuses on risk management for row-crop farming operations but also includes principles for beef cow/calf operations.

Special Topics:

- Managing stress and being resilient in tough times
- Communicating effectively with family members

Registration Fees:

- \$100 education only

Other information:

- Have 6 months from registration to complete
- This course is a replica of the 5-part Risk Management Series delivered by KSRE in 28 locations across the state from January-February 2022 in which 340 producers participated in-person

KANSAS STATE
Agricultural Economics

K-STATE
Research and Extension

Find Your Balance

WITH BONNIE BREWER
FAMILY CONSUMER SCIENCES AGENT
K-STATE RESEARCH & EXTENSION



FAMILY LIFE - MENTAL WELLNESS - NUTRITION - RELATIONSHIPS - SELF-CARE

bjbrewer@ksu.edu

<https://www.butler.k-state.edu/fcs/>

Practicing Kindness Improves Health



The phrase, “Be kind,” is one many of us have heard since we were toddlers. Most people understand what it means to be kind, whether they practice it authentically is a choice. Research now suggests that making kindness a habit impacts health and longevity. Take a look for yourself at how being kind plays a more significant role in boosting happiness, psychological well-being, and physical health than you may have realized.

Being kind changes the brain – Those who practice kindness through volunteering don’t experience the same type of declines in memory or executive functioning compared to those who do not volunteer. Research results have shown that after two year of regular volunteer work people’s brain health was significantly impacted.



Those who practice kindness regularly have lower risks of mortality – People who are kind have been shown to be more physically active. They are able to walk longer at older ages, have better balance, and have lower levels of physical pain. Researcher still do not understand the exact mechanisms by which acts of kindness improve people’s health, but it is likely that multiple processes are at play.



Find Your Balance

Practicing Kindness Improves Health Cont.



Kindness reduces stress - Stress causes a cascade of reactions in your body. It can drive up blood pressure, ultimately lead to higher cholesterol levels, and other changes that raise the risk of cardiovascular disease and other poor health outcomes. Kindness may help buffer that stress response by distracting you from problems you may be having, so that you are less reactive to yourself and have a clearer perspective.



Acts of kindness reduce social isolation – Social isolation is a known risk factor for physical and mental health problems. Acts of kindness require going out to help others and looking outside of our own circumstances. This sense of purpose and connection reduces the impact of isolation.

Kindness impacts the health of all ages – In a recent study, high school students were randomly assigned to volunteer for 10 weeks with elementary school kids. Compared to students in the trial who were put on a waitlist, the teen volunteers had improvements in several markers of cardiovascular health: healthier body mass index, healthier inflammatory markers, and healthier total cholesterol. The students who increased the most in empathy and altruistic behaviors, and who decreased the most in negative mood, also showed the greatest decreases in cardiovascular risk over time.



Acts of kindness are actions of the heart. Now research backs that these heartfelt actions have heart healthy results. Make the choice to “Be kind,” and feel the ways a kind heart can create a healthier heart.

Find Your Balance

POPULAR WALK KANSAS PROGRAM NEARS 25TH YEAR

Registration opens March 4th and the program is open to those beyond Kansas



MANHATTAN, Kan. – In the midst of thousands of Kansans rallying around a challenge to walk or roll a distance equivalent to the length of the state, Sharolyn Jackson believes one goal should always be kept in mind.

“It’s important to have fun,” said Jackson, a family and consumer sciences specialist in K-State Research and Extension’s northeast region.

Jackson is also coordinator of the popular Walk Kansas program, which turns 25 this year. ‘Fun,’ she says, has been a cornerstone of the health and fitness program since its beginning more than a quarter-century ago.

“The best physical activity is one you will actually do. There are so many spillover effects from physical activity that include being more productive at work, being more satisfied in your life, improving your mood and improving your outlook on life,” Jackson said.

Walk Kansas is a team-based challenge that encourages people to walk, jog, run, roll, bike, swim or do whatever they enjoy doing to live more healthfully. The program routinely draws more than 5,000 participants.

[Online registration for the 2025 Walk Kansas program](#) opens on March 4. Each team must assign a captain, in addition to a team name. The cost per team member is \$10, which must be paid at the time the captain registers the team.

Each team of friends, family members or others is made of six members who set a goal to engage in moderate exercise for a minimum 150 minutes per week, for eight weeks. Each team members’ exercise minutes translate to miles and the team’s total over eight weeks is roughly equivalent to 423 miles, or the distance across Kansas – east to west.

Find Your Balance

POPULAR WALK KANSAS PROGRAM NEARS 25TH YEAR CONT.

If team members decide they want to do more, they can sign up for various challenges outlined on the [Walk Kansas website](#).

If you don't have a team, or just prefer to take on the challenge yourself, there is a solo participant option. You do not need to live in Kansas to be on a team or to do the solo challenge.

"The minimum guideline for health is 150 minutes per week at moderate intensity (set by the U.S. Centers for Disease Control and Prevention), or you can go at a more vigorous pace and get the same benefit with less time," Jackson said. "It's up to each team and team member as to how they want to structure their exercise, and we'll explore a lot of the benefits, how-to's and more in our weekly newsletter and webinars."

Walk Kansas began on a local level more than 25 years ago, then grew to a statewide program in 2001, according to Jackson. It remains an eight-week program, which she notes, "is long enough to help people get into a routine."

"There is varying research about how long it takes to form a habit, but eight weeks is a pretty solid timeframe," she said. "It's long enough to have developed a routine and it's something that if you stop, you feel like you're missing something."

The online reporting system will again help participants track their fruit, vegetable and water consumption, in addition to daily exercise minutes. Jackson said the program will also highlight prevention and maintenance of diabetes and other chronic conditions, and there will be information on walking, biking and driving safety, in partnership with the [Kansas Traffic Safety Resource Office](#).

"Walk Kansas aims to help you make improvements in your lifestyle habits, and to surround yourself with supportive people," Jackson said. "It really helps to empower you to make good decisions about your health in terms of healthcare and monitoring and just staying on top of your health."

More information about Walk Kansas also is available at [local extension offices in Kansas](#).



Garden Gossip

Calla Edwards

Horticulture Agent

callae@ksu.edu

<https://www.butler.k-state.edu/horticulture/>

Starting Seeds at Home (Part 1)

Over the last few weeks, I have been taking some time to sort through my garden seeds and get ready for this year's gardening season. While we are still a few weeks away from starting most of vegetable seeds we can start many of our annual flower seeds along with some cole crops right now. Here are some tips to help you get started this spring including the basics of seed starting and how to troubleshoot some common issues you might encounter.

Timing is one key to being successful when starting seeds for your garden. Most of our vegetable varieties will need to be started six to eight weeks and flowers up to twelve weeks before you plan to plant your plants outside in the garden. Most of our vegetables and flowers will need to be held inside till after the threat of frost is over; I usually recommend planting cold-sensitive plants outdoors around the end of April or the first part of May since our average last frost is in mid-April. This gives the ground some extra time to warm up and reduces the chances a late frost will have us scrambling to cover our plants. If we follow the recommended start times we would start planting vegetable seeds the first weekend to mid-March and flowers should be started the first weekend of February. There are a couple of exceptions to the above starting dates, our broccoli, cabbage, etc. can be planted before the frost-free date or the end of March to early April so those would be started the first weekend of February while our vining crops should be started a couple of weeks later so they don't get too big. Be sure to check the packaging of the seeds to verify what is recommended for that particular variety.

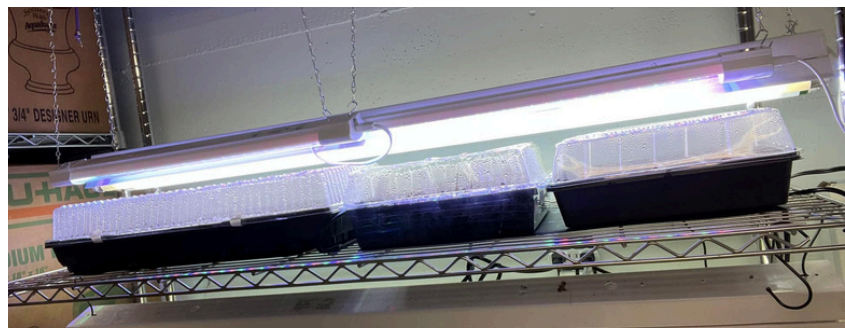


Garden Gossip

Starting Seeds at Home (Part 1) Cont.

Once you have figured out when to start your seeds, the next big issue to address is lighting. Seedlings need a minimum of 12 hours of light to prevent long leggy growth. Unfortunately, we can't get that using sunlight from a window alone so some supplemental light will be necessary. Luckily

seedlings do not require high-quality expensive light sources to grow successfully. Seedlings need a high quantity of light, but not high quality. I have found that using fluorescent light fixtures with one warm or daylight bulb and one cool light bulb provides the correct spectrum of light that seedlings need to thrive. The bulbs need to be positioned four to six inches above the tops of the seedlings to provide enough light to prevent stretching. As the seedlings grow, move the lights up higher. I usually use a timer for my lights to have them on for 14 hours to make it easier to manage the light system.



soil that could damage or kill your seedlings. I usually use the peat pellets to start my seeds in but that is what I've had the best luck with based on my watering schedule and the varieties I'm starting. Try a couple of different options to see what works best for you. Once you have planted your seeds, use a plastic dome or bag to ensure the seed mix doesn't dry out while the seeds are sprouting. A heat mat under the seed mix can also help speed up the germination process by keeping the soil warm. Using bottom heat can also help encourage uniform germination so the seedlings are all about the same age for care and transplanting.

Garden Gossip

Starting Seeds at Home (Part 1) Cont.



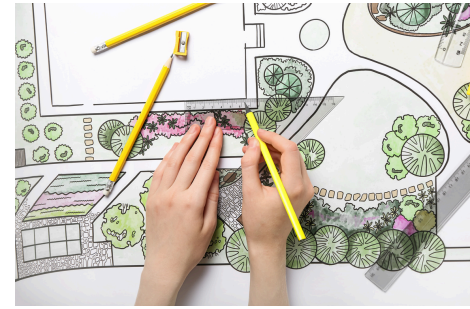
As the seedlings have started to germinate it is time to remove the plastic dome or covering. While the seeds need moisture to germinate, too much moisture can lead to disease issues and seedling death. Continue to keep the soil damp for the first few weeks after the seedlings have emerged. It's easy to kill seedlings by letting them get a bit too dry. Once the seedlings have 2-4 small leaves it's time to transplant them into a larger pot or container and continue to let them grow until it's time to transplant them outside. During this time continue to water them regularly and fertilize at half strength to prevent any deficiencies be cautious as too much fertilizer can lead to long, leggy growth and weak transplants.

Starting seeds at home is one of my favorite winter time activities. I love to watch the plants grow from tiny seeds to fruitful plants that provide food for my family. Over the weekend I plan to start my broccoli and some flower seeds so I've been making sure my area is set up and ready to go. I'll talk more about how to transition seedlings outside in a future article as we get closer to that time. Happy growing!



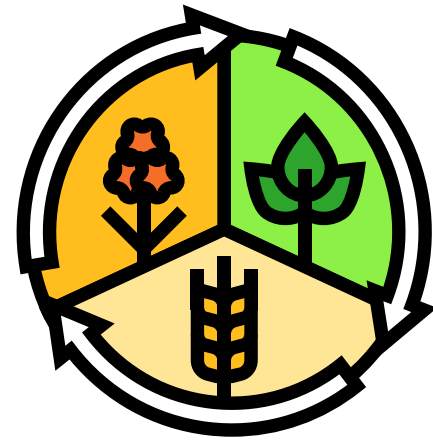
Garden Gossip

Planning the Garden



Over the last couple of weeks, the gardening catalogs have started to arrive at my house. With the cold weather last month and the gardening catalogs showing up, I've definitely been dreaming of summer and started to think about my vegetable garden for this year. While early February is still too early to start most things it's also the best time to start doing some planning for your vegetable garden. Here are some steps for planning your garden this year.

One of the first steps to planning your garden for 2025 is to remember your garden from 2024. I know the drought last year wreaked havoc with our vegetable gardens but we can still gain some valuable insight for this year. Make sure you remember where you planted your vegetables last year. It's important to rotate your vegetable families around the garden rather than planting them in the same spot year after year. The goal should be to rotate your vegetables so there are three years between when a specific vegetable was planted in that spot. For example, if I planted tomatoes in one corner of my garden in 2024 I should not plant any other member of the nightshade family in that spot till 2027.

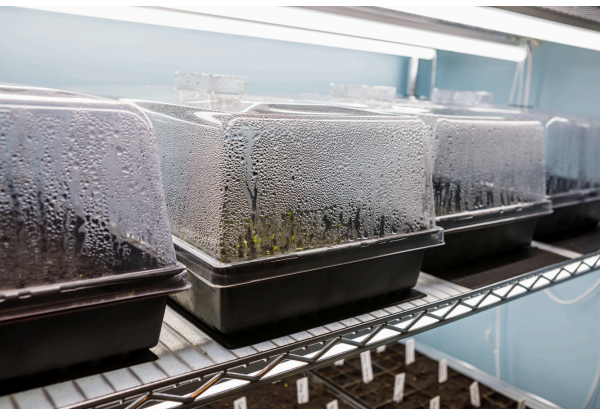
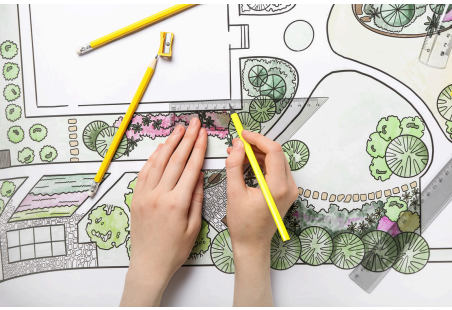


Something else you should remember is any disease or insect issues that might have happened in your garden. One way to keep a record of this over several years is to create a garden journal with drawings of where things were planted and also any records of issues. It can also be helpful to keep track of what varieties did well and what didn't to help for future planning.

The second step to planning any garden is figuring out what you want to plant. I love this step because this is where I get to dream and look through all the pretty catalogs and the different options. Last year our garden was relatively small and I didn't have room to plant much but we have expanded this year so I have far more room to play with. I'm going to try to do more succession plantings which will help me utilize the space I do have more efficiently. I intend to plant some cool-season crops this year in the ground and then transition them to warm-season crops as they mature. Be sure to pick vegetables that fit what you want to get out of your garden. This year I'm going to try a miniature cherry tomato because while I love cherry tomatoes I cannot keep up with the larger varieties. If you are planning on starting seeds sort through what you already have and make a list of what you need. I would also do a test germination on your seeds to see if they are still viable.

Garden Gossip

Planning the Garden Cont.



If you are planning on starting seeds pay attention to the seeding dates based on your frost-free date. Those dates should also be noted in your plan so you don't end up with too big or too small plants. (I might have been guilty of both of those in the past, oops.) A side note, January is the time to start onion seeds and toward the end of the month start cole crops. It takes 6-8 weeks for onions and cole crops to grow to a size to transplant. To figure out when you need to start your seeds first find your frost-free date, then read on the seed

packet to find how many weeks before that frost-free date to start seeds. In El Dorado, the last frost date is typically April 20th but be aware that we can have frosts after that depending on the year.

The gardening season truly starts well before we can actually work the ground. I don't know yet what this winter is going to be like but summer dreaming definitely helps get me through the snow and cold. If you are new to gardening your plan doesn't have to be very specific but the basics will help to give you a guide when it comes time to start planting. Happy growing everyone and I hope you are having a wonderful winter season.



Garden Gossip

Calla Edwards

Horticulture Agent

callae@ksu.edu

<https://www.butler.k-state.edu/horticulture/>

February Gardening Calendar

Vegetables and Fruits

- Draw garden layouts to assist with the planning process
- Review garden notes about successes and failures in the garden
- Order seeds for spring planting
- Select varieties and order new fruit trees
- Take a soil test if one has not been done in the last five years
- Start broccoli, cauliflower and cabbage transplants
- Prune:
 - Fruit trees like apples, pears and cherries
 - Peaches and nectarines just prior to bloom time
 - Grapes, raspberries and blackberries
- Incorporate manure or compost into the garden areas for soil improvement
- Avoid working the soil when it is wet
- Check dates on stored seed packets. Sprout a few from each packet in a moist paper towel to check germination rates. Discard packets with poor results.



Flowers

- Start seeds for transplanting in the spring
- Check fall-planted perennials and water if needed
- Watch for frost heaving of tender perennials and cover if needed
- Replenish winter mulch around roses and other plants
- Check bulbs in storage and discard if rotted
- Prepare catalog orders

Garden Gossip

February Gardening Calendar Cont.

Lawns

- To prevent lawn suffocation, rake fallen leaves
- Review lawn service contracts and make changes
- Tune-up and repair the mower to get a jump on the season
- Avoid injury to the lawn when soil is frozen by keeping foot traffic to a minimum



Trees and Shrubs

- Check for rabbit damage on young trees and shrubs
- Water fall planted trees, shrubs, and evergreens if the soil is dry and not frozen
- Apply dormant oil for control of scale and mites
- Prune:
 - Begin spring pruning. Do not prune spring flowering trees and shrubs until after bloom
 - Cut twigs and branches of spring shrubs to bring indoors and force for a splash of spring color
- Carefully remove snow from limbs with a broom
- On warm days, prepare garden soil for early planting



Miscellaneous

- Check plants for insects, mites, or other problems and treat as needed
- Withhold fertilization until spring arrives
- Remove dust build-up on plants by placing them in the shower and washing them off or use a soft cloth to wipe off the leaves
- Water as needed, avoid letting roots set in water
- Keep plants out of hot or cold drafts



Garden Gossip

ANNUAL BUTLER COUNTY
Lawn & Garden Show

**GROW & BLOOM
IN BUTLER**



Master Gardeners of Butler Co., KS

FREE
Admission

- Children's Activities
- Concessions
- Exhibits & Vendors
- Plants for sale!
- Professional Presentations
- Seed Swap
- Soil test service available!
- & More!

**DOOR
PRIZES!**

Saturday, April 5th, 2025
Sunday, April 6th, 2025

Butler County Community/4-H Building
206 N. Griffith, El Dorado

K-State Research and Extension is committed to providing equal opportunity for participation in all programs, services and activities. Program information may be available in languages other than English. Reasonable accommodations for persons with disabilities, including alternative means of communication (e.g., Braille, large print, audio tape, and American Sign Language) may be requested by contacting the event contact, Calla Edwards two weeks prior to the start of the event March 13th, 2025 at 316-321-9660 or callae@ksu.edu. 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. K-State Research and Extension is an equal opportunity provider and employer.

K-STATE
Research and Extension

Butler County

4-H

Madeline Wallace

4-H Youth and Development Agent

mgwallac@ksu.edu

<https://www.butler.k-state.edu/4-h/>

A Minute with Madeline

Celebrating African American Pioneers in 4-H

February is Black History Month. As we reflect on the rich history of 4-H and its impact on youth development across America, it's essential to recognize the profound contributions made by African American pioneers who helped shape the program into what it is today. Figures like **T. M. Campbell**, **Margaret H. Thomas**, and **Dr. J. R. Hooker** played pivotal roles in integrating and advancing the mission of 4-H, despite the challenges posed by racial discrimination and segregation.

T. M. Campbell (pictured) is widely recognized as America's first African American extension agent, making significant strides in agricultural education and outreach for Black communities in the early 20th century. Hired by the U.S. Department of Agriculture in 1906, he helped bridge the gap between Black farmers and agricultural resources, offering valuable education in modern farming techniques, crop management, and animal husbandry. His efforts were instrumental in improving the livelihoods of African American farmers, who had limited access to formal agricultural education due to segregation. Campbell's role as an extension agent laid the groundwork for future African American leaders in agricultural extension and 4-H programs, as he was among the first to recognize the importance of equipping Black communities with the knowledge and resources to thrive in agriculture. His pioneering work helped demonstrate the vital role of African American extension agents in uplifting rural communities and fostering economic empowerment.



Celebrating African American Pioneers in 4-H Cont.

Margaret H. Thomas was a trailblazer in 4-H, serving as an advocate for African American youth in agricultural education during a time when racial barriers were prevalent. As the first African American to hold a national position in the 4-H organization, Thomas was instrumental in breaking down barriers for Black youth and providing them with opportunities to engage in leadership development, agriculture, and community service. Through her work, Thomas created pathways for future generations to develop essential life skills, empowering African American youth to become leaders in their communities.

Equally significant was **Dr. J. R. Hooker**, whose advocacy and leadership were essential in the integration of 4-H programs across the country. As an educator and extension agent, Hooker worked tirelessly to ensure that African American youth had access to the educational opportunities offered through 4-H. Hooker's efforts were crucial in creating spaces where African American youth could not only learn but thrive, contributing to their communities and developing leadership skills that would serve them throughout their lives. His work laid the foundation for an inclusive 4-H program, and his legacy continues to inspire future generations.

These pioneers, along with others who contributed to the cause, exemplified resilience, determination, and a steadfast belief in the power of youth development. They faced adversity but remained dedicated to creating a more equitable and inclusive 4-H community, one that could uplift all young people, regardless of race. Today, African American leaders continue to build on their legacy, working to ensure that 4-H remains a place of opportunity for youth of all backgrounds.



4-H

INSECT ART CONTEST 2025



By the Light of the Moon: Insects at Night

The K-State Research and Extension Pesticide Safety and IPM Program is hosting its annual insect-themed art contest, open to all ages and skill levels in Kansas. This year, the theme is *"By the Light of the Moon: Insects at Night."* The goal is to explore which insects are active or inactive at night and why, then create artwork that fits the contest theme.

AGE GROUPS

- Kindergarten - 2nd Grade
- 3rd Grade - 5th Grade
- 6th Grade - 8th Grade
- High School
- Adults

CATEGORIES

- Traditional Illustration (drawing or painting)
- Digital Artwork
- 3-D Creation (painting on canvas, collage, sculpture, or other media)

AWARDS

Certificates and prizes will be awarded for each art category in each age group for 1st through 3rd place.

HOW TO ENTER



Submit your entry by April 15, 2025. See full rules and details by visiting <https://www.ksre.k-state.edu/pesticides-ipm> or by scanning the QR code.

K-STATE
Research and Extension

Integrated Pest Management
and Pesticide Safety Education

Kansas State University Agricultural Experiment Station and Cooperative Extension Service
K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating. Ernie Minton, Director.



K-STATE
Research and Extension



Butler
County

• SCHOOL ENRICHMENT PROGRAMS

LESSON TOPICS!

- Farm to Plate
- STEM
- Financial Literacy
- Choose Health: Food, Fun, and Fitness
- Team Building and Bonding
- Robotics

K-12

**Don't see what
you're looking
for? Contact us to
see if we offer it!**

Madeline Wallace
4-H Youth Development
Agent
mgwallac@ksu.edu or 316-
321-9660

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