

NEWSLETTER



From the Director's Desk



Just a couple of weeks ago, this barn was a buzz with youth, families, 4-H Volunteers, Extension staff and board members, Fairboard members, community members, and supporters. If the livestock barns, show arena and community building with static projects could talk, they would tell you:

- Memories were made by all. From the 4-Her's and volunteers to the families, judges and community attendees, everyone walked away with a memory piece of the Butler County Fair that was impactful to them.
- 2. Friendships were built and old friendships rekindled with youth who have not seen each other since last year. Laughter, water fights, fun and probably even a few tears were shed along the way. If kids couldn't be found where the parents thought they should be, they were off with their friends building memories somewhere on the Fairgrounds! The laughter was contagious!
- 3. Celebrations, disappointment, cheers, and sadness many youth accomplished goals and successes they never thought possible, while others' goals did not go as hoped and dreamed for. Either way, youth will find the drive and passion to keep reaching for their goals and also celebrate their successes.
- 4. The 4-H Motto "To Make the Best Better" was embraced. Attendees helped others, answered questions, provided support and encouragement after livestock were sold in the premium auction, assisted judges, and worked in the 4-H concession Stand. 4-H'ers and families were truly working to embrace the 4-H Motto.

4-H is a powerful program for youth. 4-H builds a skill set that will propel them through life and give them the tools to be successful. 4-H builds future leaders, visionaries, hard-workers, change makers, and public speakers, just to name a few. 4-H'ers can be found in their communities making a difference and serving as positive role models. County Fair may only be a 5-day event, but 4-H is a year-long family project. Just like any activity, it takes time to learn the ropes, grow, and gain confidence. As an agent, it is rewarding to watch youth grow in confidence and hard work each year. 4-H prepares youth for the future!

If you have ever wondered how to get youth involved in 4-H or you are interested in being a volunteer in the program, please reach out to our office. Together, we can keep working "To Make the Best Better"

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

~Charlene

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Upcoming Events



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.

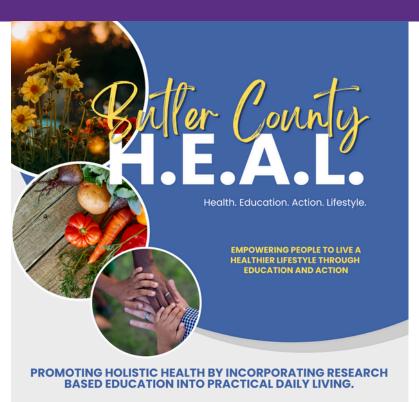
Friday 7:30 a.m. - 11:30 a.m.

*** ** ***



September						
	LABOR* *****DAY*** CLOSED	Extension Council Board Meeting 6:30 p.m.	③ Garden Hour 12 p.m.	4	⑤	6
7	8	9	Lunch & Learn - Andover Public Library 12:15 p.m.	11)	@	13
4	Lunch & Learn - Lori's EMPORlyum!, Augusta 12:15 p.m.	(Extending Your Growing Season - Benton Community Building 5:30 p.m.	(19	(19	②
21	@	3	4	2 5	©	②
2 3	(9	<u></u>				

Upcoming Events



K-STATE
Research and Extension

Butler County

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

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

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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





Upcoming Events



Innovations in Horticulture Research at Kansas State University

Wednesday, August 6th 12:00PM -1:00PM CST

As a land-grant university, Kansas State University's core missions are Teaching, Research, and Extension. This session will share recent and emerging horticultural research across the state and beyond. Join Dr. Cheryl Boyer, Professor and Extension Specialist, as she highlights research projects addressing horticultural specialty crops such as ornamentals, fruits and vegetables, and turfgrass.



Register Here

~

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







Bring your lunch and join
Horticulture Agent, Calla Edwards,
over the lunch hour during our
monthly Lunch & Learn Program.
This will be held over the lunch
hour and will cover a variety of
horticulture topics.

August 13th 12:15-12:45 p.m.

Andover Public Library 1511 E Central Ave Andover, KS

August Topic: Cut Flowers

Start your own cut flower garden to bring the beauty of flowers indoors! This session covers the basics of establishing a cut flower garden. Learn ideas for prepring soil, seed starting, flower varieties, irrigation set-up, maintenance, and even marketing tips for your floriferous crops.

Kansas State University Agricultural Experiment Station and Cooperative Extension Servi





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This will be held over the lunch
hour and will cover a variety of
horticulture topics.

August 18th 12:15-12:45 p.m.

Lori's EMPORIyum! 1604 Custer Ln. Augusta, KS

August Topic: Squash & How to Use It

Squash is a very fragile vegetable in the garden. Learn tips on preventing insect issues & recipes to use your surplus of squash this season.

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Shrubs That Thrive in Kansas

Wednesday, September 3rd 12:00PM -1:00PM CST

Picking the right plant for the right place is crucial to have plants that will last in our challenging Kansas climate. Learn the best shrub varieties suited for the state's unique climate challenges, including heat and drought tolerance. Join Dr. Jason Griffin, Woody Ornamentals Horticulture Extension Specialist and Director of the John C. Pair Horticulture Center, as he highlights some great shrubs to incorporate into your



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/

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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



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

Reflecting on the 2025 Butler County Fair



As the dust settles and the banners come down, I want to take a moment to reflect on another unforgettable Butler County Fair! This year's fair was packed with moments of growth, celebration, and community—from the first static exhibit entry to the final sale in the livestock arena. Thank you to every 4-H member, parent, volunteer, superintendent, judge, and supporter who made this fair possible.

Over the course of all the fair fun, I saw incredible displays of hard work and learning. Our 4-H youth showcased their talents through clothing construction, photography, public speaking, livestock showmanship, and more. Their poise during judging and their willingness to support one another—whether in the show ring or behind the scenes—made us all proud.

The Clover Café was once again a success, with members stepping up to serve the community and gain valuable real-world skills. The new additions to this year's schedule were well received, and it was heartening to see such strong attendance at events like the Fashion Revue, Barnyard Olympics, and the 4-H Food Auction.

County fair is more than just ribbons and awards—it's about personal development, responsibility, and the relationships built along the way. I am especially proud of how our members represented themselves and their clubs with respect, kindness, and integrity. Thank you for making the 2025 Butler County Fair a celebration of youth, learning, and community. We can't wait to see what you'll do next. Let's carry this momentum forward into a strong new 4-H year!

Charlene Miller

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



I can't remember a time in recent years when we have met August 1st head-on with this green of grass, ponds full, frequent rains, and high cattle markets. With the continued rain, hay season has been strung out. Some farmers are still trying to put up brome hay, while others are just getting started with native grass. Traditionally, brome should be cut and baled in June, while native grass is done in July. Typically, it's hot and dry by now and grass is burning up. However, with temperatures having not been summer-like until recently and the rain continuing to fall, brome and native grass have continued to grow. I encourage producers and purchasers to forage test their hay. This will allow you to know exactly what quality you have and what adjustments to your livestock feed you may or may not need to make. It will be interesting to see what the forage values you look like considering the conditions we have had.



Charlene Miller

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Forage Testing Hay

Hay season will be winding down soon. As the season wraps up, hay is being hauled, equipment cleaned and put away until next time. One procedure you don't want to forget about is forage sampling your hay. Sampling the hay will provide you with a picture of feed quality, which in turn helps you determine the quality of hay you are selling or feeding to your own animals. Proper sampling procedures are necessary to accurately assess forage quality. Forage analysis results are only as good as the sample submitted. When collecting a sample, the sample should accurately reflect leaf-stem ratio, legume/grass mix, and weeds present in a particular location within the same cutting.

Here are the steps to sampling:

- 1. Hay Probe a hay probe is the best method to collecting a good core sample. If you don't have one, one can be checked out from the Extension Office.
- 2. Sample by Lot Every field and every cutting is different. Don't mix samples from different fields and different cuttings. Make sure you label your samples and keep a record.
- 3. Taking a sample Take at least 20 core samples from widely separated bales or stacks. Core samples should be taken 12"-15" deep from the center of the end of the bale if collecting from square bales. If collecting samples from large rounds, collect them from the center of the bale. Mix the samples together and then place in a clean, gallon, clear plastic bag. Seal the bag tightly.
- 4. Ship samples immediately collect samples and bring to the Extension Office the same day. It's best to bring the samples earlier in the week so they don't sit in a postage center over the weekend.

If you would like more information on proper hay sampling, visit <u>www.butler.ksu.ed/agriculture/</u> or call our office at (316) 321-9660.

BEEF CATTLE & FORAGE FIELD DAY AUGUST 12, 2025

SOUTHEAST RESEARCH & EXTENSION CENTER 25092 NESS RD PARSONS, KS

Registration - 8:30 am Program - 9:00 AM - 2:00 PM Lunch Included with Program

TOPICS INCLUDE:

Winning Silage Strategies from Field to Feedbunk
Renato Schmidt, Forage Technical Services, Lallemand

Staying Safe around Silage:
Practical Training for On-Farm Safety
Paige Adams, U.S. Project Manager, Lallemand

Rotational Grazing with Virtual Collar Demonstration

Jaymelynn Farney, Kansas State University

Live Yeast, Real Results: Understanding the Impact of Probiotics and Postbiotics in Beef Cattle

Kip Karges and Melissa Jolly-Breithaupt, Technical Services, Lallemand

Ticks and Emerging Cattle Diseases

Gregg Hanzlicek, Kansas State University



Register by August 7, 2025 by calling 620-820-6133 or online at https://tinyurl.com/2b225nt5





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 communications (e.g., Braille, large print, audio tape, and American Sign Language) may be requested by contacting the event contact (Southeast Research and Extension Center) two weeks prior to the start of the event (August 1, 2025) at 620-820-6133 and msexton@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.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

Cow Camp 2025 prepares women to lead in cattle industry

By Kelsey Stremel, K-State Extension news service

HAYS, Kan. — In the cattle industry, experience matters, but for many women, gaining hands-on experience can be a challenge.

Whether they've married into an operation, desire a career in beef production systems, or are trying to start their own herd from scratch, women often find themselves expected to help manage livestock without ever having been taught how.

Cow Camp 2025, a hands-on educational experience for women in beef production, will be held Sept. 10-11 at Kansas State University's Agricultural Research Center in Hays. The program is designed to help women build practical skills in cattle management, grow their confidence, and take a stronger role in the workforce shaping the future of Kansas agriculture.

"This is workforce development in the most grounded, impactful way," said Sandy Johnson, K-State Extension beef specialist. "We're meeting women where they are and equipping them with the tools, they need to succeed in an industry that depends on smart decisions and shared leadership."

Cow Camp offers workshops on body condition scoring, calving preparation and simulator training, expected progeny differences (EPDs), vaccine handling, forage sampling, pasture monitoring and more. The program is tailored for women who are managing a first herd, helping with a family operation, or entering the industry from the ground up.

"This event is about capacity building," said Emma Briggs, K-State Extension beef production specialist. "It's about giving women the skills, support and access to research-based information they need to contribute meaningfully to their operations and the broader beef industry. That's what the land-grant mission is all about: bringing the university to the people and investing in rural communities."

Cow Camp 2025 prepares women to lead in cattle industry Cont.

As the cattle industry evolves, more women are stepping into decision-making roles on farms and ranches. Yet many report limited access to training and peer support, particularly in rural areas. Johnson said Cow Camp addresses that gap through a supportive, no-pressure environment where participants can ask questions, try new techniques and connect with others facing similar challenges.

"We're not just teaching skills; we're building confidence and community," Johnson said. "And that's what keeps women in agriculture long term."

K-State Extension developed Cow Camp in response to growing demand for educational opportunities that reflect the realities of western Kansas agriculture. The program supports beginning and experienced producers and reinforces the university's commitment to practical, inclusive outreach as part of its land-grant heritage.

The event is limited to 40 participants. Registration is \$75 and includes meals, materials and all workshop sessions.

For more information, send email to wkrec@ksu.edu or visit https://www.wkrec.org.



Corn production: Estimating yield potential

With most corn fields in Kansas already in reproductive stages (or close to flowering for late-planted fields), it is time to start assessing grain yield potential. Successful pollination is a critical aspect that farmers can evaluate by examining ear silks. Having conditions that favor the synchrony between the pollen shed by the tassels and the silks, the exposed silks should turn brown and easily separate from the ear when the husks are removed.

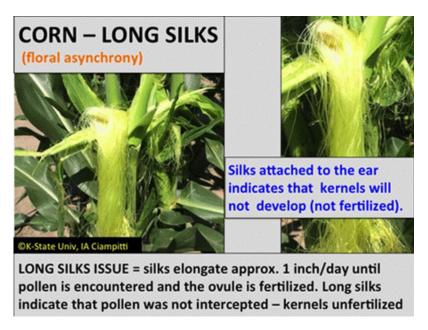


Figure 1. Long silks primarily reflecting floral asynchrony. Silks that have not been successfully pollinated will stay green. Infographic by I. Ciampitti, K-State Research and Extension.

Corn flowering

The cool, wet early season, followed by a rapid onset of very warm temperatures, triggered a period of <u>rapid growth</u> for some corn fields in eastern and central Kansas. This unique set of environmental conditions sets the stage for potential pollination issues. In some fields, tassels remain tightly wrapped in the upper leaves and fail to shed pollen properly, causing pollination issues leading to poor or reduced kernel set. More about this phenomenon, with photos, can be found in a separate companion article in the eUpdate edition.

Corn Production Cont.

Another important point relates to the timing of heat and water stress. Water stress around flowering time (R1, http://www.bookstore.ksre.ksu.edu/pubs/MF3305.pdf) will negatively impact pollination due to a lack of synchrony between the pollen release and the emergence of the silks, which is a process that requires a lot of water. Heat stress around flowering will mainly impact the viability of the pollen. Usually, under dryland conditions in Kansas, water and heat stress happen together. Silks that have not been successfully pollinated will stay green, possibly growing several inches long (Figure 1). Unpollinated silks will also be connected securely to the ovaries (the undeveloped kernels) when the husks are removed.

Corn yield potential estimation

Once pollination is complete or near completion, farmers could begin to estimate corn yield potential. To obtain a reasonable estimate, corn should be at least in the milk stage (R3). Corn can move quickly from silking to milk stage while only a limited portion of the state is in dough (R4), based on the USDA-NASS crop progress estimate of 11% in dough as of July 13. Before the milk stage, since grain abortion is still possible under stress conditions (mainly due to drought and/or heat stresses), it is difficult to tell which kernels will develop and which ones will abort.

To estimate yields, we can use the yield component method (Figure 2). This approach uses a combination of known and projected yield components. It is considered "potential" yield because one of the critical yield components, kernel size, remains unknown until physiological maturity or black layer (R6). Therefore, we can only make an estimate of predicted yield based on expected conditions during the grain filling period (e.g., favorable, average, or poor).

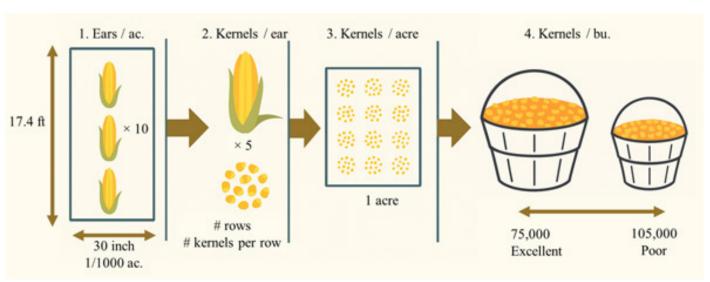


Figure 2. Example of corn yield estimation under the "yield components method". Graphic by Tina Sullivan, K-State Research and Extension.

Corn Production Cont.

Steps to estimating corn yield using yield components:

Step 1. Ears per acre via ear count in a known area, [Figure 2, step 1]

- With 30-inch rows, 17.4 feet of row = 1,000th of an acre. The number of ears in 17.4 feet of row x 1,000 = the number of ears per acre. Counting a longer row length is fine, just be sure to convert it to the correct portion of an acre when determining the number of ears per acre.
- Make ear counts in 10 to 15 representative parts of the field or management zones to get a good average estimate. The more ear counts you make (assuming they accurately represent the field or zone of interest), the more confidence you have in the yield estimate.
- Example: (25 + 24 + 25 + 21 + 24 + 26 + 23 + 21 + 25 + 23)/10 = 23.6 ears. Scaling up to an acre: 23.6 x 1,000 = 23,600 ears per acre.

Step 2. Kernels per ear, [Figure 2, step 2]

- There are two sub-components of kernels per ear: (i) the number of rows per ear and (ii) the number of kernels within each row. Most likely, the number of rows will be around 16, and ears always keep an even number of rows.
- The number of kernels per row depends on multiple factors, starting from the hybrid, but mainly on the growing conditions around flowering.
- To arrive at kernels per ear, multiply the two sub-components (number of rows x kernels per row).
 - Note: Do not count aborted kernels or the kernels on the butt of the ear; count only kernels that are in complete rings around the ear. Do this for every 5th or 6th plant in each of your ear count areas. Avoid odd, non-representative ears.
- Counting 5 ears from each 17.4-foot area had an average of 16 rows and 27 kernels per row: 16 x 27 = 432 kernels per ear

Step 3. Kernels per acre = Ears per acre x kernels per ear, [Figure 2, step 3]

• 23,600 ears per acre x 432 kernels per ear = 10,195,000 kernels per acre



Corn Production Cont.



Step 4. Kernels per bushel, [Figure 2, step 4].

- This must be estimated until the plants reach physiological maturity.
- Common values range:
 - o Excellent: 75,000 to 80,000 for excellent
 - o Average:85,000 to 90,000
 - o Poor: 95,000 to 105,000
- At this point, the best you can do is estimate a range of potential yields depending on expectations for the rest of the season.
- Example: Under a scenario of temperatures above 100°F for the next 7-14 days and lack of rains (and if these conditions persist), it might be more than reasonable to assume below-average grain-filling conditions producing overall medium to small kernels. Based on the projected weather, a reasonable value might be 100,000 kernels per bushel. Note this is just an example value for this scenario.

Step 5. Bushels per acre:

• 10,195,000 kernels per acre ÷ 100,000 kernels per bushel ~ 102 bushels per acre

Final considerations

If these estimates are close to correct, the example field used here is probably worth taking to grain harvest. Past experience indicates that this method of estimating yield usually provides somewhat optimistic estimates. Please consider these points when doing these field estimations.

View Article Here:

https://eupdate.agronomy.ksu.edu/article/corn-production-estimating-yield-potential-651-3

Southern rust is now active in central and eastern Kansas

Southern corn rust continues to spread in the southern part of the US and is now detected in four counties across central and eastern Kansas (Figure 1). In cooperation with K-State Plant Pathology Department, the Kansas Corn Commission has launched an online Corn Disease Resource Center (https://kscorn.com/corndisease/) to help corn growers identify what diseases to watch for in their geographic area. Unlike some other corn diseases, such as tar spot and gray leaf spot, southern rust does not survive in Kansas during winter months and blows in annually from more tropical regions. The severity is dependent on the weather, and southern rust likes 90-degree days, warm nights, and high humidity.

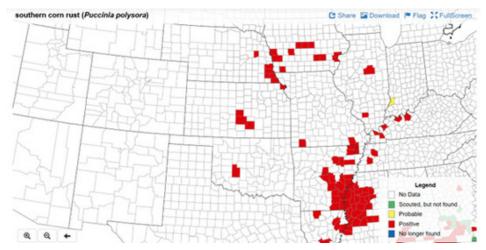


Figure 1. Southern corn rust (Puccinia polyspora) in Kansas as of July 17, 2025. Source: https://kscorn.com/corndisease/

Here are some frequently asked questions related to managing southern rust in Kansas.

Should I apply a fungicide prior to observing southern rust?

Applying a fungicide to control southern rust is not recommended unless the disease has been observed in the canopy. Now that southern rust has been reported in Kansas, it is time to scout corn

fields. Once pustules are observed, the pathogen can reproduce rapidly if temperatures and humidity are high.

What factors should I consider when making the decision to spray for southern rust?

It is important to consider hybrid susceptibility, disease incidence (how many plants are affected), and the crop's growth stage. Infection early in the season on a susceptible hybrid, coupled with conducive weather conditions, poses the highest risk for yield loss.

Southern rust is now active in central and eastern Kansas Cont.

If I apply a foliar fungicide at tasseling (VT) or silking (R1) to control tar spot and gray leaf spot, will this application have efficacy against southern rust?

Yes. Most fungicides labeled for tar spot and gray leaf spot are also effective for southern rust. Depending on the product, they will have residual activity for approximately three weeks after application. Fields should be carefully monitored for disease development.

What fungicides are best to control southern rust?

Efficacy ratings for corn fungicide management of southern rust have been compiled by a working group of corn researchers and can be found here: <u>Crop Protection</u> Network

How do I know if what I'm seeing is southern rust?

Southern rust produces characteristic orange pustules of spores, primarily on the upper side of the leaf (Figure 2). If you run your finger across the pustules, the orange spores will be visible on your hand.



Figure 2. Southern rust on corn. Photo courtesy of Rodrigo Borba Onofre, K-State Research and Extension.

Please help us track Southern Rust

If you suspect a field has Southern Rust, contact Rodrigo Onofre directly at 785-477-0171 and/or submit a sample to the K-State Plant Disease Diagnostic Lab at https://www.plantpath.k-state.edu/extension/diagnostic-lab/documents/2021_PP_DiseaseLabChecksheet.pdf.pdf. This will help us monitor the situation in the state.

For more information on identifying corn rusts, see K-State Research and Extension Bulletin MF3016, <u>Corn Rust Identification and Management in Kansas.</u>

View Article Here:

https://eupdate.agronomy.ksu.edu/article/southern-rust-is-now-active-in-central-and-eastern-kansas-651-4



HPAI:

Highly Pathogenic Avian Influenza

Highly pathogenic avian influenza, or HPAI, is a rapidly spreading viral disease that can infect many types of birds. Avian influenza, often called avian flu or bird flu, can be common, but some strains are highly pathogenic, which means they are more deadly. Introduced by migrating wild birds, HPAI can spread through spring migration and affect all domestic poultry — small and backyard flocks as well as commercial industries.

Poultry with HPAI do not survive the illness. Vaccines for HPAI are not readily available.

Signs of Avian Influenza

- · Coughing and sneezing
- · Difficulty breathing
- Extreme depression
- · Lack of energy
- · Decrease in feed or water intake
- Swelling or purple discoloration of head, eyelids, comb, wattle and legs
- · Decrease in egg production
- Sudden unexplained death

Biosecurity is your best option to prevent HPAI from entering your small or backyard poultry flock.

Here is what you can do:

Protect Your Small Flock from Avian Influenza



Limit or halt travel with your birds to sales, shows and swaps. Ensure you have clean hands, clothes, and

footwear before handling your birds if you attend events. Do not allow others to handle your birds.



Limit your birds' visitors.

If someone must visit your birds: discuss where they have been. Have them wash their hands and wear clean clothes and footwear.







Call your veterinarian if your flock shows signs of influenza or you suspect exposure. No veterinarian? Call the Kansas Department of Agriculture's Division of Animal Health at 785-564-6601.



Charlene Miller

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Canning, as a method of preserving food by placing foods in jars or cans and heating them to a temperature that destroys microorganisms that could be a health hazard or cause the food to spoil, has been around for more than two centuries. Today's methods have often been passed down and evolved through generations, but they all have one

thing in common: Preparation. There's a lot of work and time invested in home preservation, and the last thing you want is spoiled food in the end.





Preparation tips:

- Inspect equipment for parts that need replacing, such as rubber seals on pressure canners. Many parts can be ordered from the canner manufacturer.
- Get your pressure gauge checked. Contact your local extension office for a free pressure gauge check.
- Canning jars can be reused, so check for cracks or scratches that could lead to broken or unsealed jars.
- Canning rings can be reused, but once they get rusty or corroded, they should be replaced.
- Canning lids can be used only once. Buy lids now.
- Many online recipes are not safe or accurate. They increase the risk of foodborne illness, particularly botulism. Safe resources include those from State Extension resources, and Ball Mason Canning.



If you need access to classes, have canning questions, or want to learn more about the "So Easy to Preserve" canning resource, contact your local extension office. Butler County Extension Office (316) 321-9660 or bjbrewer@ksu.edu.

Home Food Preservation Resources

Check out the Home Food Preservation Resources web page here: https://www.ksre.k-state.edu/program-areas/food-preparation-processing-and-safety/food-preservation.html



Child Development Expert Urges Parents to Make Time to Talk with Children

Early school years are important to lifelong success, Wiles says

K-State Research and Extension news service

MANHATTAN, Kan. – When it comes to helping their children achieve academic success, it sure doesn't hurt if parents remember how to multiply fractions and diagram sentences.

But Kansas State University child development specialist Bradford Wiles said there is a more basic way that parents can spur their children's growth.

"First and foremost," he said, "parents need to be present and engaged with their children."

"Parents are children's first teachers (but) as they get into formal schooling, you don't want to maintain that primary teaching role; you want that to be an in-classroom experience. But the support from the child's family – or, the home and school congruence -- is really critical to success."



Wiles describes parent involvement as an effort to understand what is happening in their children's lives.

"It really starts with an environment where what happens at school is something that adults are inquisitive about; that is, they want to know what's going on," he said. "That includes being able to have discussions with children about what's happening at school. Parents should be engaged with their children's lives."

Parents should consider volunteering at school activities and boards, such as PTO, if possible. They should talk to the child's homeroom teacher regularly, as well as other school personnel such as administrators, coaches, librarians and non-homeroom teachers.

Child Development Expert Urges Parents to Make Vime to Talk with Children Cont.

Wiles said: "Ask them questions like, 'are they paying attention and doing what they're supposed to do?' And then involve your child in those discussions. Learn to develop a comprehensive lens that includes your own view, your child's view, and the teacher's view in order to understand the full picture."



"Success in school really does start with having an open line of communication with your child's classroom and the school at large."

Wiles said the early years of a child's education are especially important: "A lot of children are really anxious to get older, and yet there's a lack of appreciation for what it takes to be older and successful which are -- in my view -- the things you learn in pre-kindergarten through sixth or seventh

grade. We need to recognize that is part of the developmental process. All the things they will learn after are built on that foundation."

Wiles encourages parents to establish a "family culture" that centers around two things: "My child is important and what they're learning is important for their future."

"Even if they are telling you they are doing things they shouldn't be doing, that is not the time to be upset, angry or disappointed," he said.

"The important thing is to let them know you care about them and you're glad they shared with you. Once you've had a chance to process what they've said, you can figure out what needs to change. But being grateful and encouraging your child to share with you is the foundation of really solid adult-child relationships through late childhood, early adolescence and all the way through to emerging adulthood."

More information on child development is available online from K-State Research and Extension here: https://www.ksre.k-state.edu/program-areas/health-and-wellness/family-and-child-development/

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Aphid Populations on the Rise



With the hot weather, aphid populations are on the rise across Butler County. Monitoring your vegetables for aphids a couple of times a week is important. Often aphid infestations start with just a few scattered colonies throughout the field, so be sure to check everywhere, not just around the edges. If you find a few aphids on your plants, it's best to wait to treat till you reach the thresholds listed below. A few aphids can help support the beneficial insects that feed on aphids, which will keep your numbers in check. On small plants, when the aphid population is increasing, a general threshold level is

found when aphids are found on 50-60% of the leaves or if aphid populations remain at 8 to 10 or more per leaf for two or more weeks. For tomato or pepper plants, treat if 20% of the branch ends are infested or 5 aphids per leaf. If you see just a few aphids, you can spray the plant down with a strong stream of water, which washes the aphids off and kills them. Other control options, such as insecticidal soap and horticultural oils, are labeled to treat aphids before the populations reach high levels. Once populations reach higher levels, products containing malathion, bifenthrin, cyfluthrin, or pyrethrin can be used to control the insects. Be sure to thoroughly cover all parts of the plant and all sides of the leaf. Read the label and make sure it lists the vegetable you are treating along with the number of days after spraying before you can harvest the produce.

Fall Webworms

While Fall webworms are present in the state throughout the entire growing season, we typically don't notice them till late summer into fall, when their nests become larger and easier to spot. These caterpillars are pale-green to yellow to nearly white with black spots and long white hairs. They are often confused with the eastern tent caterpillars in our area; however, their webs can distinguish the two. The fall webworm has a loosely woven web encasing entire branches, and the caterpillars feed inside the web. In contrast, the eastern tent caterpillar has a densely woven web in the crotches or forks of tree branches, and they feed outside the nest, only coming inside at night or in rainy weather.

The fall webworm feeds on many trees, including birch, crabapple, maples, hickory, pecan, mulberry, and walnut. Because these caterpillars only feed inside the nest, they are difficult to control with chemicals unless you have a highpowered spray that can penetrate the web. Because larvae remain in the nests, removing web masses should eliminate most larvae. Fingers are efficient tools for stripping web masses from branches, but a pole with a nail driven through the end or one with a bristled toilet brush attached can be used to avoid touching the nest. Once the webbing around the nest has been torn open, local birds can help remove the pests for you, or you could spray. You can also cut the branch with the web off and dispose of it, rather than use chemicals for control. Unless there are multiple nests on the tree or the tree is already stressed by other pests, most mature trees can tolerate a few fall webworm nests without any damage, especially in the fall.



Harvesting Onions and Garlic



If you planted onions or garlic in your garden, the time is upon us to start harvesting those crops. Garlic typically matures sometime in early June and, depending on the species, can be harvested till mid-July. Your garlic is ready to harvest when approximately five green leaves are left on the plant, and the rest are turning brown. It's best to stop watering garlic a couple of weeks before you plan to harvest, so it's easier to pull. Onions are ready to pull when over half of the tops of your plants have fallen over. This happens when the bulbs have reached their mature full size. Both plants should be allowed to

dry out of direct sunlight for several weeks before being stored for the year. You can braid the stalks of garlic together to hang them for storage or cut the stalks and roots off (1" for garlic, ½" for onions) above the bulb and store in a cool, dry location. Both should be stored at temperatures below 40 degrees for the longest shelf life in an area with low humidity to prevent sprouting. Garlic can be stored for 9 months or more, depending on the variety, while onions will last a shorter period of time, depending on the variety.

Fruit Set on Vegetables

If we have nighttime temperatures above 75 and daytime temperatures above 85, tomatoes and other vegetables are unlikely to set any fruit, even though they are blooming like crazy. The temperature causes the tomato plant to become stressed. This also changes the flowers and makes it harder for them to become pollinated. But don't worry, once temperatures cool down, the tomatoes will return to producing enough fruit to feed a small village. If your plants weren't blooming even before the heat but were developing into big bushy plants, you might have overfertilized them this spring. Overfertilization leads to vigorous plant growth but fewer blooms or fruit set. On tomatoes, try not to fertilize with nitrogen until the plant has set its first fruit round to avoid excessive vegetative growth. Green beans will also drop flowers if hot temperatures are over 95 degrees, especially if the soil is dry.

Vining crops such as squash, cucumbers, watermelon, and pumpkins can have different issues. They have male and female flowers on the same plant. Typically, the early blooms are all male flowers, meaning there won't be any fruit from them; however, after a few weeks, the plant finds a balance of male and female flowers. It's easy to distinguish the male from the female flowers as the female flowers have a tiny fruit behind the blossom (in the photo, the burgundy arrow (top) is the female flower, the yellow arrow (bottom) is the male). The heat can also change which types of flowers are created with higher temperatures (90 degrees during the day and 70 degrees or warmer at night), favoring having more male flowers instead of female flowers.

If you have male and female flowers but still aren't getting fruit set, make sure you see pollinators visiting the flowers. Tomatoes are typically pollinated by wind and don't necessarily need pollinators, but vining crops do. If you don't see many pollinators visiting your garden, use a paintbrush to transfer pollen from male to female flowers. You need more pollinators if you only get fruit from the pollinated flowers. Like the flowers, bees don't like it hot and will start to decrease their pollination when temperatures get above 90 degrees. Once temperatures cool down, the bees



and the flowers will return to normal. Till then, we have to water as needed and wait for the temperatures to drop again.

Tomato Fruit Issues



Tomatoes are the most popular vegetable that people grow in their gardens, and also one of the most requested at the farmer's market. While tomatoes are typically pretty easy to care for, they are not without their leaf and fruit issues. I've covered leaf spot issues in the past, so this time we will focus on the fruit. When we think of tomato issues, the most common one that comes to mind is Blossom End Rot, but that disorder is not the only one that impacts the fruit. There are three disease issues that can impact tomato fruit, and several different disorders that can decrease the quality, shelf life, and even how edible the produce is. Let's take a look at the most common ones and how to prevent them.

Anthracnose- This fungal disease is a frequent problem in the latter part of the growing season, specifically on ripening tomato fruit. The symptoms of this disease first appear as small circular, slightly sunken lesions on the surface of ripening fruit. The spots quickly enlarge, becoming bruise-like depressions that develop a water-soaked appearance beneath the surface of the skin. Soon after, black concentric rings consisting of numerous small fruiting structures form in the center of the lesions. The fungus can survive in infected plant debris and in the soil. During rainy weather, fungal spores are splashed onto the fruit. Most infection takes place on ripe or



overripe fruit. Green fruit can also be infected, although symptoms do not develop until the tomatoes begin to mature. Disease development is favored by frequent rainfall and temperatures around 80 degrees Fahrenheit. If you have had issues with anthracnose in the past, you can apply preventative sprays. Once the fruits are infected, they can't be saved. Spray options include the active ingredients Bacillus subtilis, chlorothalonil, copper fungicides, or maneb. Be sure to read the label to check the post-harvest interval (how long after you spray before you can harvest the fruit) and make sure it is labeled for anthracnose and the vegetable you are spraying.

Bacterial Speck and Spot- In average Kansas summers, bacterial speck and bacterial spot of tomato are not common, but they can cause serious damage during wet growing seasons. On tomatoes, both diseases result in spot formation on the leaves and fruit. Heavy infection can cause defoliation, but the main effect of these diseases is the reduction of fruit quality. Leaf symptoms of bacterial speck and bacterial spot are similar. Both diseases cause small (1/8 to 1/4 inch) black lesions on leaves. These spots are usually surrounded by a yellow halo.

Tomato Fruit Issues Cont.



Bacterial Speck and Spot Cont.- The lesions of bacterial spot tend to have a greasy appearance; those of bacterial speck do not. The two diseases are more easily distinguished by symptoms on the fruit. Bacterial spot results in small, black, slightly raised, water-soaked spots. These spots may enlarge to ¼ inch in diameter and become very rough and cracked. Bacterial speck lesions are also slightly raised, but typically are much smaller (1/16 inch) than those of bacterial spot. Bacterial

speck lesions do not crack or become scaly, as in bacterial spot. These diseases can be prevented or reduced in severity by removal of plant debris in the fall, cultivation of weeds, rotation, and the use of clean (non-infested) seed and transplants. Start with the cultural practices described above. There are several copper-based compounds available for homeowners, but chemical control of bacterial diseases is inconsistent. Bacteria have extremely fast reproductive times, and it is difficult to manage an epidemic once it is underway. If you use a chemical, read and follow all label instructions.

Tomato Cracking- Tomatoes typically crack because of fluctuations in the soil moisture. It's common to see cracks appear right after a heavy rain completely saturates the soil, as the tomatoes grow faster than the skin can stretch. Tomatoes can crack in two ways. Vertical splits, such as the photo at the beginning of this article, along the sides of the fruit, are known as radial cracking and are the most serious. This pattern of splitting commonly occurs during hot, humid weather. Cracking that occurs in a circular pattern, similar to the photo on the right, at the top of tomato fruits, ringing the stem end, is known as concentric cracking. With both radial and concentric cracking, your best option is to harvest fruits immediately, before they begin to rot. Your best bet is to keep the soil moisture as consistent as possible.



Yellow Shoulders- This disorder is the reason for this week's article. Yellow shoulders refer to when the top area on tomato fruit ("shoulder") never ripens, staying hard and yellow or green even as the rest of the fruit is red. Tomatoes can also have issues ripening on the inside, with the inside flesh being white and hard. No matter how long these tomatoes are left on the vine, the shoulders and interiors do not ripen. Yellow shoulder is often seen in heirloom tomato cultivars, where the trait has not been improved through plant breeding.

Tomato Fruit Issues Cont.

Yellow Shoulders Cont.- Conditions leading to yellow shoulders are a complex blend of environmental conditions and plant physiology, but it is very common during periods of high temperatures. The shoulders of the tomato, or the top edges of the fruit, are often exposed to the most heat and sun, so they are most prone to the problem. Maintain good soil moisture and fertility. Or harvest fruits at the pink stage and allow them to finish ripening indoors, away from outside stresses. This often helps the tomato ripen more evenly. Choose cultivars in the future with less susceptibility to yellow shoulders.





Catfacing- This issue can be a perennial problem for many home gardeners. Catfacing is an abiotic disorder of tomatoes that affects developing fruit. It is a deformity of the tomato fruit when the flower bud develops abnormally before blossoming. It results in the blossom end (bottom) of the fruit becoming cracked, misshapen, or having enlarged scars. The deformity's resemblance to a cat's puckered cheeks gives the disorder its unusual name. Large-fruit tomato varieties, like many of the heirloom types, are most often affected by catfacing. It should be noted that the deformity does not detract from the taste of the tomato. There are several causes of catfacing, including high levels of soil nitrogen, excessive pruning, cool temperatures when plants are planted, extreme fluctuations in day and nighttime temperatures, periods of drought followed by heavy rains, irrigation during ripening, and finally, exposure to herbicides. This disorder doesn't impact the

taste of the tomato; it simply makes it unattractive. To prevent this disorder, choose varieties that are less likely to have it, maintain a consistent soil temperature, avoid heavy early fertilization, and wait till after cool weather has passed before planting tomato plants outdoors.

Many of these diseases can be prevented with proper sanitation of the garden after the growing season. While you may not be able to prevent all of the disorders that were discussed, you can reduce the chances of getting them through variety selection, consistent soil moisture (when the weather allows for it), and picking fruit when they first start to turn colors but before they get too ripe.

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August Gardening Calendar

Vegetables and Fruits

- Water about 1 inch per week
- Plant a fall garden: beets, carrots, beans, and turnips for autumn harvest
- Plant transplants of broccoli, cauliflower, and cabbage for fall production
- Harvest crops on a regular basis for season-long production
- Ease fruit loads on branches by propping with wooden supports
- Net ripening fruit to protect from hungry birds
- Fertilize strawberry bed for added flower bud development





Flowers

- Apply 1 to 1½ inches of water per week to gardens
- Divide irises and daylilies during this dormant period
- Fertilize mums, hardy asters, and other fallblooming perennials
- Deadhead annuals to encourage late-season blossoms
- Cut back and fertilize annuals to produce new growth and fall blooms
- Sow hollyhocks, poppies, and larkspur for spring blooms
- Take cuttings from geraniums and begonias for wintering indoors

August Gardening Calendar Cont.

Lawns

- Water tall fescue one to two times, per week, applying a total of 1 inch of water
- Apply last application of fertilizer to Zoysia by mid-month
- Be on the lookout for grubs and apply proper control methods
- Start planning for fall renovation projects such as aerating and seeding
- Check the sharpness of mower blades and repair
- Mow turf as needed depending on summer growth
- Destroy unwanted Zoysia and Bermuda grass
- Take a soil test to determine a fertility program
- If you plan to redo a cool-season lawn, spray the current foliage with herbicide



Houseplants

- Water houseplants regularly and fertilize to promote growth
- Check plants for insects such as scales, aphids, and spider mites
- Wash plants to remove dust layers
- Make cuttings and repot plants before summer sun slips away



Trees and Shrubs

- Water young trees every 1 to 2 weeks by thoroughly soaking the root system
- Prune and shape hedges
- Check mulch layers and add more if needed
- Prune broken, dead, or crossing limbs for healthier plants
- Check young trees and shrubs for girdling wires, and ropes from planting and remove
- Avoid fertilizing ornamentals now so they harden off before winter
- Hand remove bagworms

