GRILLING ESSENTIAL: 
FOOD THERMOMETER

You cannot determine if food is fully cooked just by looking at it. The only way to make sure food has reached a safe minimum internal temperature is to use a food thermometer.

Tips for Using a Food Thermometer

- To ensure safety and prevent overcooking, check the internal temperature of the food toward the end of the cooking time.
- The food thermometer should be placed in the thickest part of the food and should not be touching bone, fat, or gristle. Check the temperature in several places to make sure the food is evenly heated.
- Clean your food thermometer with hot water and soap before and after each use!

Safe Minimum Internal Temps

- Beef, veal, lamb, steaks and roasts: 145 °F with a three-minute “rest time” after removal from the heat source
- Ground meats: 160 °F
- Poultry (whole, parts or ground): 165 °F

Get more safe grilling tips at www.fightbac.org.
Nothing will ruin your summer fun faster than sprinting to the bathroom. Though food safety may not sound very exciting, food safety is imperative to having a good time. The guidelines are no different than they would be in a restaurant. Remember these four simple steps to help keep your family out of the bathroom and in the backyard:

**Clean**
- Your hands. This should go without saying! This is especially important after handling raw meat.
- Produce. Often, fruits and vegetables are consumed raw in the summer months – on salad, in fruit based or fruit topped desserts or side dishes, as toppings on burgers, etc. Because these fruits and vegetables are NOT going through a ‘kill step,’ it is imperative they are rinsed and gently scrubbed under clean, running water to remove any dirt which may be harboring bacteria.
- NOT raw meat. You read that correctly. Bad habits are hard to break, but current guidelines ask us to refrain from rinsing raw meat as it could cause the bacteria to splatter onto neighboring counter tops, equipment, and utensils.

**Separate**
- Again, raw fruits and vegetables do not always undergo a kill step before we consume them, so it is imperative we keep them separated from raw meat in an effort to prevent contamination.

**Cook**
- Every home chef should keep a food thermometer within easy reach. Checking the internal temperature is a much more accurate indication of doneness than going off color and touch alone.
- The temperature sensor in a digital food thermometer is typically in the tip of the probe as opposed to a dial food thermometer which has a small dimple, approximately halfway up the probe. And it is this dimple that food needs to come into contact with in order to accurately measure temperature with a dial food thermometer.
- Commit the following temperatures to memory:
  - 145F for steaks, roasts, chops, fish, and other whole cuts of meat
  - 160F for ground meats
  - 165F for all types of poultry
- These temperatures apply to meats that are smoked, grilled, baked, etc.
- Another benefit of using a food thermometer, other than keeping your family out of the bathroom all weekend, is to know when food is done and reduce the likelihood your food is overcooked.

**Chill**
- Common barbecue side dishes are served cold such as potato salad, macaroni salad, slaw, and sometimes baked beans. Cold foods should be maintained at a temperature of 40F or below. If you are not able to return these dishes to a refrigerator in a timely fashion after serving them, the use of ice and coolers is strongly suggested. Bacteria can multiply rapidly at temperatures between 40F and 140F and especially fast at temperatures above 70F.
- Leftovers should be divided into several shallow containers and put in the fridge within one to two hours.
- Allowing warm foods to sit on the counter top for hours to cool before placing them in a refrigerator is not necessary. Again, bacteria multiply particularly fast at temperatures above 70F so the goal is to cool warm foods down as quickly as possible.
- If you know your family will not be able to consume the leftovers within a few days, freeze them!

**Fun fact:** Which ingredients in potato salad are hazardous and require temperature control? Is it the boiled potatoes, mayonnaise, hard boiled eggs, celery, or the mustard?

Many believe mayonnaise would be to blame for foodborne illness when in reality, commercially manufactured mayonnaise is too acidic to support the multiplication of bacteria. It is the other ingredients, namely, the cooked potatoes and eggs, that make these creamy side dishes hazardous.

This article was adapted from a K-State Research and Extension News Story titled Grillin’ and Chillin’? Remember Food Safety, says K-State Expert. It was published 23 May 2022, and was developed from an interview with one of our Food Preservation and Food Safety Specialists, Karen Blakeslee.

If you have questions about food safety, reach out to Kaitlin Moore, Nutrition, Food Safety & Health Agent at 785-243-8185 or kaitlinmoore@ksu.edu.
Understanding Hospice and Advanced Directives

Do you have questions about advance directives or what hospice care provides?

Discover answers to your questions at this presentation about hospice care ranging from how it works, how it's paid for, and how you get started. It will provide an understanding of how hospice can ease the burden when a patient is faced with the decision of how to spend their last moments.

The presentation will also discuss advanced directives and the importance of having this critical conversation with your loved ones. Tools will be provided to help navigate those conversations. Advanced directives can help ease the burden your loved ones face when they must make decisions for you. They will be confident they are following your wishes and not left trying to determine what your wishes are.

When: Thursday, August 18, 2022
Time: 2:00 p.m.
Where: Belleville Public Library
1327 19th Street
Belleville, KS 66935

Presented by Meadowlark Hospice Director, Amy Burr. Sponsored by K-State Research and Extension-River Valley District and Meadowlark Hospice. There is no cost to attend and the event will be held in-person. Please RSVP to the River Valley Extension District Washington Office by calling 785-325-2121.

K-State Research and Extension is committed to providing equal opportunity for participation in all programs, services and activities. Accommodations for persons with disabilities may be requested by contacting the event contact, Jordan Schuette by August 11, 2022 at 785-325-2121 or at jschuette@ksu.edu. Requests received after this date will be honored when it is feasible to do so.

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

Each year many people are approaching their 65th birthday, contemplating retirement, and starting their journey with Medicare. Medicare, all its parts, and the advertisements can be confusing. Let us help. Join Jordan Schuette, Adult Development and Aging Agent for a monthly Medicare Basics informational program.

Washington – August 9th
First National Bank Basement
101 C St., Washington, KS 66968
6:00 p.m.

Please RSVP for the Washington Program by calling the Washington Extension Office at 785-325-2121. We do schedule one-on-one appointments in all four offices of the River Valley Extension District. If you are New to Medicare or have other questions about Medicare contact Jordan Schuette in the Washington Office at 785-325-2121.

AVAILABLE FOR MEDICARE QUESTIONS

Have questions about being New to Medicare, concerns about your 2022 Medicare Part D Plan, or other Medicare questions? Jordan Schuette, Adult Development and Aging Agent can help answer these questions. Call for an appointment at your local office if you need assistance. You can call and leave a message for Jordan Schuette at the Washington Office, 785-325-2121.

RIVER VALLEY DISTRICT OFFICES
WILL BE CLOSED
MONDAY, JULY 4TH
IN HONOR OF INDEPENDENCE DAY
HAVE A SAFE AND
HAPPY HOLIDAY!

JULY IS BLUEBERRY MONTH
TRY THESE DELICIOUS RECIPES

Easy Blueberry Crumble

Ingredients
2 cups granola
5 cups frozen blueberries
6 tablespoons dark brown sugar
2 tablespoons butter, softened

Instructions
1. Heat oven to 350 F
2. In a food processor, pulse one cup of the granola until it is reduced to coarse crumbs. (Can crush with a rolling pin)
3. In a 9-inch square baking dish, sprinkle half the granola crumbs over the bottom. Add blueberries and 4 tablespoons of the sugar. Stir to combine.
4. In a medium bowl, combine remaining sugar, butter, and remaining granola (ground and unground). Mix together until coarse crumbs are formed; sprinkle over blueberry mixture.
5. Bake 40-50 minutes until blueberries are bubbling and top is golden brown.

Blueberry Almond Chicken Salad Lettuce Wraps

Ingredients
1/2 cup plain, fat-free Greek yogurt
1/4 cup fresh basil, chopped
1/2 teaspoon kosher salt
1/4 teaspoon pepper
3 cups cooked chicken, chopped (canned is acceptable)
1 cup blueberries
1/2 cup celery, chopped
1/4 cup scallions, chopped
8 lettuce leaves
2 tablespoons almonds, sliced and toasted

Instructions
1. In a bowl, combine yogurt, basil, salt and pepper until blended.
2. Add chicken, blueberries, celery and scallions and toss until evenly coated.
3. Arrange lettuce leaves on serving platter and top with chicken mixture, dividing evenly between lettuce leaves.
4. Top with almonds.
KEEPING SHOW ANIMALS HEALTHY AFTER GOING TO THE FAIR

Schools out for the summer and many rural teenagers can be found in the barn. For many that means working with their livestock projects and taking them to the county fair or summer shows. Animals that have been exhibited during the county fair are likely near and dear to their exhibitor’s heart. After all, they spend countless hours training and preparing their animal for the show at the fair. We protect them from everything before the show season, but do we give enough thought about what happens when they go home? Each time an animal is taken out of its home environment and exhibited, there is a certain amount of risk for exposure to illnesses.

When cattle are co-mingled at shows, they can pick up funguses and viruses. The two common conditions that can be brought home are ringworm and warts. Ringworm is a fungus that can be passed through direct contact with an infected animal or through contact of contaminated brushes, halters, and other equipment, or by cattle rubbing up against stalls where cattle with ringworm have been previously. Ringworm gets its name due to the circular patches of hair loss that result from the infection. These ringworm lesions are fairly easy to treat, but it does take time for the hair to regrow, and the animal won’t be admitted to the fair with lesions. The other common condition that cattle can bring home from the show is warts. Just like ringworm, warts are transmissible from one animal to another. Treatment for warts is to remove them when they are small and allow them time to heal before taking the animal to the next show.

Just like cattle, the other species of sheep, goats, and pigs can also get ringworm and warts. Some other diseases to be cautious about include pinkeye that is caused by flies as well as dust and plants. Keep stalls clear of flies and reduce the amount of dust that is kicked up while at the fair. Soremouth which is a contagious and viral skin disease primarily affecting sheep and goats. This can cause a painful skin lesions and scabs on the muzzle of the affected animals which prevents them from eating and drinking. Sheep and goats can get this disease through direct contact or contaminated materials. Swine influenza is a concern in pigs that come to fairs. As it is a respiratory disease caused by a virus that can be transmitted through direct contact of pigs. There are many other diseases that can be transmitted at a fair among animals without our knowledge.

To keep our animals safe and healthy after a show there is a series of biosecurity steps that can help an exhibitor to protect their show animals. As well as those that were left at home after the fair has ended.

- Keep animals that were at the fair separate from animals that were not for at least 28 – 30 days. If possible, do not allow nose-to-nose contact and provide as much distance between animals.
- Disinfect all buckets, feeders, tools, and footwear that were at the fair.
- Throw away any feed or hay that was at the fair.
- Always wear clean clothes and footwear. Boot coverings may be helpful when caring for animals.
- Take care of animals that stayed home from the show first, and animals that were at the show second. Do not go back and forth between animals as this increases the risk of cross-contamination.
- Do not eat or drink in the barn.
- Observe animals daily for signs and symptoms of illness, such as:
  - Obvious pain or discomfort
  - Decrease in appetite and water intake
  - Fever
  - Lethargy
  - Diarrhea or changes in consistency in manure
  - Discharge from nasal cavity or eyes
  - Overall weakness

Care of animals after the fair is just as critical as their before-fair care. Exhibited animals are exposed to new animal populations and fair goers, and most likely experienced a lot of stress during their time away from the farm. By practicing these biosecurity steps, you can help keep all of your animals safe and healthy.

If you have any questions feel free to stop by or contact me, Kaitlyn Hildebrand, Livestock Production Agent, in the Concordia office, 785-243-8185 or khildebrand@ksu.edu.
Cows are curious animals and sometimes this curiosity can get the best of them. Just as people like to try new foods on occasion, there are times when cattle opt to munch on the low branches of trees. Can foraging on tree leaves be beneficial to cattle? There is not a lot of nutritional knowledge on tree leaves that is known. Why you may ask? We don’t typically send off leaves for sampling because we don’t normally feed it to cattle as a source of food. However, cattle will eat leaves from low hanging tree branches or from downed limbs following a storm. A few years ago, a study was done in Kansas to check the nutritional value of tree leaves during early and late fall. Surprisingly, tree leaves have good protein value, and these levels will be able to meet the protein value that cattle require. Yet, digestibility can be pretty low for most of the tree varieties especially when looking at an oak leaf. Compared to an oak leaf an Osage orange leaf has very high digestibility at the beginning of the fall, but decreases by the end of fall just like other tree leaves do. Even though leaves can provide some nutritional advantages to cattle. The one thing as producers that we need to be most concerned about is the amount of tannic acid that appears in leaves. Weather changes can impact the amount of tannic acid in the leaves. Tannic Acid is found in nutgalls, the swelling of trees caused by parasitic wasps. However, the most common occurrence of tannic acid is in the twigs of certain trees, specifically Chestnut and Oak trees. This acid when ingested by cattle causes proteins in the rumen to bind more readily and has a negative impact on digestibility. Just like we need to be concerned about the level of tannin in the leaves we also need to realize that many tree leaves can be toxic. These toxins can show up not only when the leaves are dying off but can also happen when the leaves are still on the tree. Some tree varieties of concern are oak and cherry. With oak, both the acorns and the leaves are toxic. Cherry trees are typically uncommon in Kansas, but it is still a good idea to be aware that their leaves are considered extremely toxic to animals. Additionally, pine needles from ponderosa pines can cause abortions in cows when they are consumed. Yet, these will be consumed when there is very little grass and cattle are extremely hungry. Along with potential toxins, impaction or objects getting caught up in the digestive tract can have a negative consequence on cattle. This can be anything from leaves to sticks to acorns and more. It is not uncommon to see cattle choke on an Osage orange hedge ball or have acorns or sticks become impacted in their digestive tract. Clinical signs of impaction of the digestive system include complete anorexia, scant feces, moderate distention of the abdomen, weight loss, and weakness. Recognizing these signs can help the animal get treatment faster because if not caught in time it can lead to death. Experts have stated that cattle can be very curious and want to try to eat something new, oftentimes they experiment only when they are hungry. A lot of these problems we see with cattle eating leaves are because they are not considered browsers which indicates their digestive system are not built like those that do browsing. A browser is a type of herbivorous animal that specializes in eating leaves, fruits of high-growing woody plants, soft shoots, and shrubs. Therefore, a browsing animal does not just feed on grass or other low growing vegetation. Goats and other animals that are known to browse can handle tannin and toxins a lot better than cattle because they are meant to digest this type of food source. Cattle are preferential grazers and will most often eat the grass first. It becomes a concern when we graze cattle in a heavily forested area where there is little grass on the ground. While tree leaves may offer some nutritional value, producers need to be cautious of the toxic concerns and consider a rotational grazing plan so that there is plenty of grass available.

Kaitlyn Hildebrand, Livestock Production Agent, Concordia Office, 785-243-8185 or khildebrand@ksu.edu.

HEAT STOPS TOMATOES FROM SETTING FRUIT

Having trouble with your tomato plants not setting fruit this year? When temperatures remain above 75°F at night and are around 95°F during the day, and with dry, hot winds, these conditions will cause poor fruit set on tomatoes. High temperatures interfere with pollen viability and/or cause excessive style growth leading to a lack of pollination. It usually takes about 3 weeks for tomato flowers to develop into fruit large enough to notice and an additional week before tomatoes are full size and ready to start ripening. There are “heat-set” tomatoes such as, Florida 91, Sun Leaper, and Sun Master that will set fruit at higher temperatures; the difference is normally only 2 to 3 degrees. Cooler temperatures will allow flowers to resume fruit set. If you have any questions feel free to stop by or contact me in the Washington office, 785-325-2121 or khatesohl@ksu.edu.
**PRUNING STORM DAMAGED TREES**

With all the storms we have had already this year, trees around the area have taken a beating. Most of the time you have to decide whether a tree can be saved or if it needs to be taken down. Here is a simple checklist you can follow to help take care of your storm-damaged landscape.

First, you need to be safe when checking on your landscape after the storm. Check for downed power lines or hanging branches. Don’t venture under a tree until you know it is safe. If large limbs are hanging from the tree, be sure to take extra precautions. If the limb is too large for you to handle safely or is in a spot that can cause damage to a surrounding building, you can call an arborist that has the tools, training, and knowledge to remove the limb safely. Next thing you need to do is clean up and remove any debris so you don’t trip over any of it.

Second, decide whether it is feasible to save the tree. If the bark has been split, exposing the cambium, or the main trunk of the tree is split then the tree probably will not survive and should be removed. If there are too many broken limbs on the tree, destroying the form of the tree, the best option is to take down the tree and replace it. When pruning the tree, the topping method which is done by removing all the main branches and only leaving stubs on the tree, is not a recommended pruning procedure. New branches will normally arise from the stubs, but they will not be as firmly attached as the original branches and are more likely to break in subsequent storms. Also, the tree will put a lot of energy into developing new branches, leaving less energy to fight off diseases and insect attacks. Often the topped tree’s life is shortened, causing you to remove the tree later anyway. Below you will find a couple ways of pruning your tree, if you decided the tree can be saved.

Third, prune off the broken branches to the next larger branch or to the trunk, depending on which limb is broken. If you are removing the limb back to the trunk, do not cut flush with the trunk, but rather at the collar area, which is between the branch and the trunk of the tree. Cutting flush with the trunk leaves a much larger wound than cutting at the collar and takes longer for the tree to heal the cut. Middle-aged or younger vigorous trees can handle having up to one-third of the crown removed and still make a surprisingly swift comeback. Older trees can take longer to recover from a vigorous pruning.

Remove the larger limbs in stages. If you try to take off a large limb in one cut, if will often break off before you are finished cutting and will strip the bark off the trunk. Instead, make a cut about 15 inches from the trunk on the limb you are removing. Start from the bottom and cut one-third of the way up through the limb. Make the second cut from the top down but start 2 inches further away from the trunk than the first top cut. The branch will break away as you make the second cut. The third and final cut, made at the collar area, will remove the stub that is left from the tree. Those are just a few ways to help with summer storm cleanup of trees.

**TOMATO LEAF SPOT DISEASES**

This time of year, two common leaf-spot diseases appear on tomato plants. Septoria leaf spot and early blight. Brown spots on the leaves characterize both diseases, so it is important to figure out which disease you have so you can treat it accordingly.

Septoria leaf spot usually appears earlier in the season than early blight and produces small dark spots. Spots made by early blight are much larger and often have distorted “target” pattern of concentric circles. With both diseases, heavily infected leaves eventually turn yellow and drop. Older leaves are more susceptible than younger ones, so these diseases often start at the bottom of the plant and work up.

Mulching, caging, or staking keeps plants off the ground, making them less vulnerable to both these diseases. Better air circulation allows foliage to dry quicker having less of a chance to develop these diseases. Mulching also helps prevent water from splashing up onto the leaves and carrying disease spores to the plant.

In situations where these diseases have been a problem in the past, rotation is a good strategy. It is too late for that now, but keep in mind for next year. Actually, rotation is a good idea even if you have not had problems in the past. Unfortunately, for many gardeners their space is too small to make rotation practical. If you have room, rotate the location of the tomatoes each year to an area that had not had tomatoes or related crops (peppers, potatoes, eggplant) for several years.

If rotation is not feasible, fungicides are often helpful. Be sure to cover both upper and lower leaf surfaces, and reaply fungicide if rainfall removes it. Plants usually become susceptible when the tomato fruit is about the size of a walnut. Chlorothalonil is a good choice for fruiting plants because it has a 0-day waiting period, meaning that fruit can be harvested once the spray is dry. Chlorothalonil can be found in numerous products including Fertilem Broad-Spectrum Landscape and Garden Fungicide, Ortho Garden Disease Control, Garden Tech Daconil and others. Be sure to start protecting plants when the disease is first seen. It is virtually impossible to control this disease on heavily infected plants. If Chlorothalonil doesn’t seem to be effective, try mancozeb (Bonide Mancozeb Flowable). Note that there is a five-day waiting period between application and when the fruit can be harvested. You may wish to pick some tomatoes green just before you spray if you use Mancozeb as the tomato fruit will ripen inside.

As with all chemicals make sure to read the label to make sure it is listed for use on both the specific disease you are trying to get rid of and the plant the disease is on. If you have any questions feel free to stop by or contact me in the Washington office, 785-325-2121 or khatesohl@ksu.edu.
RIVER VALLEY DISTRICT

“2022 UP-COMING MEETINGS & EVENTS”

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