Our Mission
We are dedicated to a safe, sustainable, competitive food and fiber system and to strong healthy communities, families, and youth through integrated research, analysis, and education.

K-State Research and Extension — Cooperative Extension Service
All universities engage in research and teaching. But the 100 land-grant colleges and universities across the country have a third critical mission — extension.

The national Cooperative Extension Service was created with the passage of the Smith-Lever Act in 1914. The service was created to assure that research-based knowledge developed by the land-grant universities got delivered to the people at the county level.

Along with research and teaching, land-grant institutions “extend” their resources through non-formal, non-credit educational programs.

Johnson County, Kansas
As the local branch of Kansas State University Research and Extension (Kansas’ land-grant university), this Extension office has served Johnson County citizens since 1917.

We have access to the latest science, research and technology on subjects in five program areas. Our agents are university faculty. Their role is to encourage the application of this research-based information to help improve the quality of life for our residents.

We make the university’s expertise available to you and help you apply it to your needs. You can trust that the information we provide is:
1. Research-based
2. Expert
3. Presented without bias

Our Partners
Johnson County Extension is a unique partnership with Kansas State University, Johnson County government, and the United States Department of Agriculture (USDA) Cooperative Extension Service.

What We Do
We provide answers. We offer you accurate information through classes & events, K-State publications, e-Newsletters, and more. Our office is committed to serving you, and our agents are always glad to answer your questions. So give us a call, send us an email, stop by and say hi!

If we don’t know the answer, we’ll track it down and present you with accurate, researched-based information you can trust and use to make informed decisions that are best for you and your family.

Upcoming Events
September 2022
Back to School Nutrition

By Chelsea Reinberg | Nutrition, Health and Food Safety

**Keep Packed Lunches Safe!**

It is important that lunch boxes are safe, especially for perishable foods. Always wash hands and cooking surfaces prior to preparing packed lunches and rinse fresh fruits and vegetables with water to remove dirt.

Since many children may not have access to a refrigerator once they are at school, it is very important to pack their lunch with sufficient cold packs. At least two cold sources should be included in their lunch box to ensure safety.

Frozen water bottles make great freezer packs and can be consumed after they thaw, which helps keep children hydrated during the day. Remember to never use a paper lunch bag for perishable items, always use an insulated lunch box or bag.

If sending hot food for lunch, make sure to keep it hot and safe by using insulated containers. Fill the container with boiling water to heat the container. Let the boiling water sit for a few minutes, then empty and fill the heated insulated container with the food.

Hot food should be kept above 140°F to ensure it remains safe to eat. Parents should encourage their children to keep their lunchboxes closed and sealed until it is time to eat to eliminate loss or heat or cold.

Children should throw away any unconsumed perishable items after their meal. The cold packs do not provide sufficient cold to keep the food at a safe temperature all day. One way to prevent excess food waste is to involve children in the selection and preparation of lunches. Not only will they be more likely to eat the food, but they can learn about food and healthy eating!

**Succeed at School with Breakfast!**

Back to school is a busy time for families trying to adjust to their new routines and schedules. Trying to get the kids out of the house on time and getting to school and work on time can be stressful! Don’t let the hustle and bustle of the morning get in the way of kids eating a nutritious breakfast to start their day. Studies show that kids who consume breakfast perform better at school and have improved concentration, memory, alertness, and learning. Consuming a nutritious breakfast may also reduce the risk of overweight and obesity among children and improve their behavior.

Here are five easy steps to help make the school breakfast morning routine a little easier:

1. Set the alarm for five minutes earlier.
2. Make easy freezer friendly breakfast items like breakfast burritos ahead of time that can be reheated during the week.
3. Keep fresh cut fruit in the refrigerator for quick and easy access.
4. Prepare your breakfast the night before and keep it in the refrigerator.
5. Eat breakfast at school either packed from home or from the school breakfast program offered at school.

Try this quick and easy peanut butter-banana roll up recipe for your next breakfast. Pair with a glass of low-fat milk or yogurt for the perfect balanced breakfast that is sure to give children the energy they need to succeed at school. Aim to serve at least three of the five food groups at breakfast to get important nutrients for thinking, growing, and playing.

**Peanut Butter Banana Roll-Ups**

**Ingredients:**
1 whole-wheat flour tortilla
2 tablespoon natural peanut butter or other nut or seed butter
1 teaspoon honey
1 medium banana

**Directions:**
Mix peanut butter and honey in a bowl. Spread the mixture evenly over tortilla.
Place banana on the bottom third of the tortilla; being careful not to tear the tortilla, roll tightly. Slice crosswise into 8 pieces.

Source: Eatingwell.com

**September is National Food Safety Education Month! Refresh your food safety knowledge and practice these 4 Steps to Food Safety not only in September but all year round. (Image source: CDC)**

**Family Activity Idea:**
Have some fun trying to guess what breakfast foods others from around the world eat in this interactive game from USDA Food and Nutrition Services:
bit.ly/3waECxM
An Extension Master Food Volunteer (EMFV) is a volunteer trained by university-based nutritionists, registered dietitians, food scientists and culinary experts and becomes certified in research-based food safety and healthy living concepts. They give voluntary service for a variety of projects that utilize their training.

**Our Mission:**

Johnson County K-State Research and Extension Master Food Volunteers have a passion to improve the health, food safety awareness and quality of life of Johnson County residents by providing current, research-based information to the public. The organization embodies the education objectives of the Johnson County Extension Council cooperating with Kansas State University and the United States Department of Agriculture.

**Why Become an Extension Master Food Volunteer?**

- Increase your knowledge about health, wellness, cooking techniques and food safety
- Make new and interesting friends
- Serve the community in new and exciting ways
- Share your passion for health and food with others
- Access to free or discounted EMFV cooking, nutrition and fitness classes

Contact the Johnson County Extension Office at (913) 715-7000 or foodhelp@jocogov.org if you are interested in becoming a Master Food Volunteer, have any questions, or would like to request a speaker.

**Coming Up:**

**Lenexa Farmer’s Market**

**Sept. 22 | 8:00 AM - 12:00 PM**

Visit the Lenexa Farmers Market and stop by the Extension Master Food Volunteer Booth to receive recipes and get all your nutrition and cooking questions answered!

**Four Course Living Series**

**Sept. 12 | 11:00 AM - 1:00 PM**

Learn how to cook delicious, easy recipes with our Extension Master Food Volunteers! The Four-Course Living program offered by Johnson County Extension works with adults with developmental disabilities to discover the importance of good nutrition, safety, planning, and preparation through a series of hands-on cooking classes.

**Sept. 22 | 6:00 PM - 7:45 PM**

**Charcuterie Boards**

**Sept. 21 | 6:00 - 8:00 PM**

Learn how to create healthy food boards for any occasion. Discussion will include healthy alternatives, ideas for different types of boards, and various ways to display your board. Participants will build a board during class, using provided ingredients. Please bring a board/plate to class and food storage containers to transport your product home.

**Sept. 22 | 8:00 PM - 9:45 PM**

Learn to cook with these easy meals - sure to impress your family! This class will cover food safety, basic cooking skills and nutrition. (Suitable for ages 7-12) Check in for class starts at 9:45 a.m. Class begins promptly at 10:00 a.m. and ends at noon.

**Kids in the Kitchen**

**Sept. 24 | 10:00 AM - 12:00 PM**

Topic: Simple Suppers

Learn to cook with these easy meals - sure to impress your family! This class will cover food safety, basic cooking skills and nutrition. (Suitable for ages 7-12) Check in for class starts at 9:45 a.m. Class begins promptly at 10:00 a.m. and ends at noon.

Register Online at: [bit.ly/ksrejocoevents](bit.ly/ksrejocoevents)
FERTILIZE KANSAS CITY COOL SEASON LAWNS IN SEPTEMBER

By Dennis Patton | Horticulturalist

September is the best time of the year to fertilize cool season lawns such as tall fescue and bluegrass. If you could only fertilize your cool-season grasses once per year, this would be the best time to do it.

These grasses are entering their fall growth cycle as days shorten and temperatures moderate (especially at night). The stress of summer depletes the turf of the nutrients needed for proper growth during the more ideal temperatures and moisture levels of fall.

Cool-season grasses naturally thicken up in the fall by tillering (forming new shoots at the base of existing plants) and, for bluegrass, spreading by underground stems called rhizomes. Consequently, September is the most important time to fertilize these grasses.

Lawns Need Nitrogen

Nitrogen (N), the first number listed on a bag of fertilizer, helps thicken the stand and encourages development of a healthy root system. Apply 1 to 1.5 pounds of actual nitrogen per 1,000 square feet. The settings recommended on lawn fertilizer bags usually result in about 1 pound of nitrogen per 1,000 square feet.

A strong root system is the foundation of a nice lawn. Cooler temperatures, fall rains, and the addition of the nutrients help the lawn to recover from stressful summer conditions. The food is converted into new roots, crowns and shoots. This application helps to thicken up thin areas. A dense healthy lawn is our best defense against weeds and that prevention starts with application of fertilizer.

What to Look For When Purchasing Lawn Fertilizer

Based on the needs of the grass and the local soil conditions, fertilizers containing higher concentrations of nitrogen should be used at this time. Bags of fertilizer will always have three numbers displayed. The numbers stand for the percentage of nitrogen, phosphorus and potassium contained in the bag. Examples of fertilizers to apply in the fall have numbers such as 30-0-0 or 29-5-4 or 27-3-3.

Choosing the right type of fertilizer is important. Nitrogen in fertilizer is the most important nutrient, as it is needed in the greatest quantities by the turf. We recommend a quick-release source of nitrogen at this time. Most fertilizers sold in garden centers and department stores contain either quick-release nitrogen or a mixture of quick- and slow-release. Usually only lawn fertilizers recommended for summer use contain slow-release nitrogen. Any of the others should be quick-release. Remember, nitrogen is essential for healthy growth, color and density. Vigorously growing lawns use more than is available in the soil, so it must be replenished on a regular basis.

The Other Two Numbers, P & K

Phosphorus (P), the second number listed on the bag, is needed for growth of roots and shoots. Adequate quantities are often present in the soils of established grass. Potassium (K), the third number listed, is essential for the overall health, stress resistance and cold hardiness of lawns. Like phosphorus, it normally is found naturally in the soils. Applications of fertilizers containing phosphorus and potassium are not recommended unless a soil test indicates the need.

The Second Most Important Application of Lawn Fertilizer

November is the next most important time to fertilize. The timing of this application should be around the final mowing of the season, normally mid-month. It also should be quick-release applied at the rate of 1-pound actual nitrogen per 1,000 square feet. This enables the lawn to green up earlier in the spring, without encouraging the excessive shoot growth that often accompanies early spring application.

Protect Our Water Quality. Keep Products Off of Hard Surfaces

The easiest way to protect our water quality is by sweeping or blowing fertilizer and granular products off all hard surfaces back onto the lawn. Fertilizers left on hard surfaces wash into storm drains during rainfall, which ends up in our ponds and streams. These chemicals pollute our waterways. Fertilizer blown back onto the lawn is absorbed and keeps your money from going down the drain.

Water After Applying Fertilizer

If rain is not planned in the immediate forecast, it is advised to add water in early May, before making any spring applications. Cool season lawns experience a flush of shoot growth in the spring. Applying fertilizer before this flush is over can cause the grass to grow too fast. The rapid growth exhausts the plant’s food stock and leaves it with few reserves for the stressful summer ahead. Therefore, it is best to wait until the flush is over, usually in early May, before making any spring applications.

Fertilizing Lawns in the Spring

This emphasis on fall fertilization may conflict with some that promote spring applications. Cool season lawns experience a flush of shoot growth in the spring. Applying fertilizer before this flush is over can cause the grass to grow too fast. The rapid growth exhausts the plant’s food stock and leaves it with few reserves for the stressful summer ahead. Therefore, it is best to wait until the flush is over, usually in early May, before making any spring applications.

For complete information on lawn fertilization, contact our Extension Master Gardener Gardening Hotline at 913-715-7050.
A
ter a hot, dry summer, most of us have areas in our lawn that didn’t survive. Dead patches may be present throughout the lawn. Re-seeding may be necessary to bring your lawn back to tip-top shape.

Best Time to Overseed Kansas City Lawns

The ideal time to seed bluegrass and tall fescue lawns in the Kansas City area is early to mid-September. At this time of the year, the soil temperatures are still high, nighttime temperatures start to fall, and more rainfall is usually received. This combination makes almost perfect conditions for quick germination and establishment of turf from seed.

Good Soil Preparation Key to Success

- Verticutting
  - Besides the correct timing, proper soil preparation is vital for success. The best method for preparing the soil for overseeding is by verticutting. A verticut slices grooves in the soil creating an area for the small grass seed to fall and wash when seeding. It is this contact with the soil that is so important. Simply spreading the seed on the crusted soil will result in poor germination and an uneven stand.

- Core Aeration
  - Core aeration is also available for seedbed preparation. It is not as highly recommended for overseeding. Aeration is good for the overall health and maintenance of a lawn, but results in a less uniform stand of grass and lengthens the time it takes for the bare areas to fill in.

Purchase High Quality Seed

- High quality seed is also a must for success. Avoid seed mixes that do not contain a high percent-

age of the recommended bluegrass and tall fescue varieties. Avoid inexpensive seed that contains species such as creeping red fescue, fine leaf fescue, perennial and annual rye and annual bluegrass. These species may look good quickly after seeding but they are sure to fail under stressful summer conditions.

Use a Starter Fertilizer

- Fertilizer is the other needed product for seeding. New seed should be fertilized with a balanced fertilizer such as 13-13-13 or a high phosphorus product such as 10-20-10. Do not be fearful to fertilize at seeding because the young seedlings need the added boost to quickly develop and establish. The existing grass will also benefit.

Seed Application Rates

- Seeding is the next step and should be applied at half the seeding rate that is used for new lawns on bare soil. For tall fescue, the normal rate is 6 to 8 pounds per 1000 square feet, so the overseeding rate is 3 to 4 pounds per 1000 square feet. This should be broadcast over the prepared area. The new lawn rate for bluegrass is 3 to 4 pounds per 1,000 square feet which makes the overseeding rate around 2 pounds. Fescue should germinate in about 10 days while bluegrass may take up to two weeks.

- Water everything in and keep the seedbed constantly moist to ensure rapid germination. Begin with frequent, light irrigation and progress to deeper more infrequent watering as the seedlings become established.

- The better prepared you are when it comes to overseeding, the greater the likelihood of success. For additional information call the Johnson County K-State Research and Extension Office at 913-715-7000.
Extension Master Gardener (EMG) is an educational volunteer program sponsored by K-State Research and Extension. EMGs come from all walks of life, but their common bond is a love of gardening and sharing information throughout the community. EMGs receive a basic training in the disciplines of horticulture. They then volunteer in projects to help Extension promote its educational mission.

What We Do:
Johnson County K-State Research and Extension Master Gardeners volunteer to preserve and beautify the environment and improve the quality of life in the community by providing current research-based horticultural information to the public. EMGs promote horticulture practices, sustainability, and environmental initiatives supported by K-State Research and Extension. The organization embodies the horticultural education objectives of the Johnson County Extension Council cooperating with Kansas State University and the United States Department of Agriculture.
Fall has always been considered the season of harvest. Images of corn, pumpkins and the bounty of Thanksgiving all create moving symbols of autumn. Fall brings to close another growing season, as plants prepare for winter by shedding their leaves or go into dormancy for a long winter’s rest.

Cooler tempos and those feelings of closure signal to some that it is time to get out into the yard. Autumn projects include cleaning up the vegetable garden, the removal of faded annual flowers and the chore of raking leaves. Another chore that many people feel compelled to do in the cool, crisp days of fall is pruning.

Determine The Right Season For Pruning The Right Plant

Is fall the right time to prune? We get asked that a lot. Before tackling any pruning project you might want to make sure that fall (September through November) is actually the correct time to prune. Even though plants are preparing for winter, that does not mean that it is a good time to prune.

Pruning, although a recommended practice, creates an injury. It is for that reason we must prune with care in the fall. One of the keys to proper pruning is to make the cut at the time of year when the plant can seal the wound as rapidly as possible. Unfortunately, fall is not that time, as the plant is going into dormancy and not focused on producing new tissue, which protects the injury created by the cut. Late winter and early spring are the periods of most rapid growth for plants and is the most desirable time to prune.

How Trees Recover From Injury

It is also helpful to understand how trees recover from injury. Unlike people, trees really don’t heal. Instead, they seal, which is a completely different process. When we get a scratch or a cut we bleed a little, but then the wound develops a scab. Over time, the scab is slowly replaced with new skin and, with luck, there is no scaring. But the injury totally heals. This process is not as simple when it comes to a tree. Once a tree develops an injury, whether made by a pruning cut or disease, the injury is sealed off by the tree. That means it is always there, simply covered over by new growth. Down the road, at a later date, you can cut into the tree and still see the sign of the injury, as it was sealed off by healthy plant tissue and wood. Arborists refer to this as compartmentalization. That is, the tree just surrounds the damaged wood with a layer of cells which function is to stop the injury from spreading.

Trees seal wounds through a process referred to as “CODIT” — compartmentalization of decay in trees. In simple terms, the tree develops a microscopic layer of cells around the damaged area. These cells prevent the movement of water and nutrients to the area through the xylem and phloem. The layer of cells is a maze of tissue which contains altered chemical compounds found in the tree. Some of these compounds can be toxic to microorganisms or other pests which like to attack trees through wounds.

This is a complex process which the tree uses to protect itself. Unfortunately many trees cannot stop the wound from spreading. This, then, is the source of where rot and decay occur. It is this decay that creates cavities, which at some point fail and lead to the demise of the tree. In summary, humans have the ability to grow new cells to replace the injured tissue. A tree does not have this ability. The tree simply seals off the injury and develops new wood to cover and provide protection.

When You Can Prune Trees and Shrubs

Now that we understand how a tree grows it should be obvious that pruning should be best done heading into a season of rapid growth so that the tree can compartmentalize the wound quickly. For most trees that period is late winter or early spring.

With that being said, does that mean we should not prune in the fall? Fall pruning is best focused on the removal of dead, dying, broken or hazardous limbs. In fact, this maintenance pruning can be done anytime of the year, as safety of property and people is always the first concern.

What this does mean is that major corrective pruning to help maintain the overall health of the tree is best done during the dormant winter season or in early spring. During winter all potential damaging pests of the tree are dormant. Come spring, the tree rapidly grows to help seal off the wound and protect itself from harm.

In addition to trees, some people think the season of harvest is also good time to prune other plant materials. Good examples would be shrubs and roses. Like trees, pruning of these plant materials are best left till next season.

Timing for Pruning Shrub

If the shrubs are flowering, then pruning is based on how the plant sets its flower buds. Some shrubs produce their flowers on the growth produced during the summer months. Then come spring the plants complete the development of the buds and flower. Good examples of shrubs that bloom on old growth are such favorites as lilac, forsythia and spirea. Pruning in the fall or even winter would remove the wood or growth that contains the flower buds. Thus the spring beauty would be lost.

These old wood blooming shrubs are best pruned within four to six weeks after flowering. This allows time for the plants to develop new growth and set flower buds for the following year.

Other shrubs bloom on what is referred to as new growth. This would be beauties such as butterfly bush, Rose of Sharon and crepe myrtle. Pruning on these plants is best done in late winter or early spring, as the flowers are set on the flush growth produced in the spring season.

Roses confuse a number of people. You have probably already guessed it but roses bloom on new wood. Rose canes can be subject to winter injury during a cold season. For this reason it is recommended to prune roses in late March to mid-April, just before the period of rapid growth.

Fall is the season of harvest and garden chores. As you can now see, pruning is maybe one of those tasks that might be best left until late winter next year. I am sure you can find plenty of things to do to keep you busy in the garden. But do think twice before deciding to prune, and do what is best for the plants.
What’s Growing in the Garden?

By Zac Hoppenstedt | Horticulturalist

New Nutrition Nook Providing Greater Quality to the Community

We’re excited to announce new infrastructure and donation approach to produce grown at the garden. One of the greatest challenges we face in donating fresh produce is appropriate postharvest storage to maintain quality and help prevent food loss. This year, with special support from Advent Health and the Johnson County Department of Health and the Environment, we’ve set-up a first-of-its-kind “Nutrition Nook” self-service produce pantry in the Olathe Health Department lobby. With a commercial, glass door refrigerator and rolling merchandise shelves, we’re now able to maintain the high quality produce items we grow in the garden quality product, offering it free to all clients accessing services at the local Health Department. In doing so, we’re hopeful to create a stronger connection with the community and increasingly provide more nutritional information, recipe ideas as well as guidance for handling/storage of fresh produce. The Nook is stocked as produce is available from the garden, usually following Tuesday workdays. Contact gardencordinator@jocogov.org for information regarding produce availability.

W

What’s Growing in the Garden?

With summer vacations coming to an end and the back-to-school season in full swing, it may feel like the chance for gardening is behind us. Not so fast! Warm season crops are still thriving with these slightly cooler late summer conditions—an abundance of tomatoes, peppers, herbs and more. And the best gardening days are still ahead.

We’re transplanting cool season crop like lettuce and cabbage, while direct seeding radish, spinach, beets, turnips and quick maturing carrot varieties. At WIC Garden, September marks the harvest of a few volunteer favorites like late season sweet corn and our first apple harvest. Likewise, we’re excited to report on new developments regarding produce cold storage and distribution at the County Health Department. Read on to learn more!

It’s Sweet Corn Time! When to Harvest

This year we planted two new varieties of sweet corn as part of our participation in the statewide Extension Master Gardener Variety Trial program run out of Manhattan. These included ‘Awesome’ and ‘Coastal’ bicolor varieties. Both require about 74-76 days to maturity, yield an ear length of around 7 ¼ to 8 inches and are known for their flavor and vibrant kernel color.

These shorter days-to-maturity varieties mean we can squeeze in multiple succession plantings through the end July. At WIC, we planted on July 7th which means we’re expecting to harvest the second or third week of September. Here are some signs it’s time to harvest.

The silks, shiny thread-like fibers produced from the tip of each ear, should be mostly dry and brown at time of harvest. When this happens we gently pull the husk back and puncture one of the kernels with our finger nail. If the juice from the kernel appears milky, it should be ready to harvest. It’s best to harvest in the morning and store your freshly-picked crop in a cool place as soon as possible. Fresh corn is highly perishable and will lose its sweet and crispy taste rapidly if not refrigerated.

Tips for Picking the Perfect Apple

Our WIC garden apple orchard is home to five or six different varieties thanks to the support of The Giving Grove who helped us establish the orchard in 2014. These trees are all grafted onto dwarfing rootstocks that keep them smaller in size and quicker in years following planting to produce fruit compared to a standard apple tree growing on its own roots. The majority of our planted varieties, including WineCrisp, Liberty and Enterprise varieties, are ready to harvest in early/mid-September.

When it’s getting close to harvest time, we’re looking particularly at the “ground” color or the non-red colors on the fruit’s skin. These areas are usually green for several months leading up to maturity but transition to yellow (depending on the cultivar) when the fruit is at its peak.

While you can find plenty of information on the harvest indicators for each cultivar, nothing replaces picking one off the tree and just giving it a taste! The stem should break freely from the tree without much force. Likewise, look for darkening of the seeds in the center of the fruit, softer skin that’s easy to bite into, and a sweet flavor.

Don’t Miss the Last Farmers Market of the Season

The first full season for our Pop-Up Farmers Markets has been a huge success thanks to all of the volunteers, partners and community members who come out to support and enjoy some fresh produce and seasonal treats. We have just one more WIC Garden Farmers Markets left on September 8th from 10am-1pm at the WIC Community Garden (11875 S. Sunset – East side of the Olathe Health Services Building). These are come-and-go events that are free and open to the public.

The Market includes garden tours, recipe testing to highlight seasonal produce and of course attendees can pick up fresh organic vegetables to take home from the market stand (donation suggested to support the WIC Community Garden).

This is a great opportunity to see in person the urban agriculture techniques we discuss in the newsletter, to get outside and take home some delicious food.
Our Mission:
In support of Kansas State Research and Extension we shall be an educational, non-profit, volunteer organization dedicated to fulfilling the state program’s mission to develop a corps of well-informed volunteers to provide education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities for the State of Kansas.

Who We Are:
The Extension Master Naturalist (EMN) program is sponsored by K-State Research and Extension to provide the community with unbiased, research-based information and expertise on protecting and maintaining the natural resources of Kansas. We accomplish this through the efforts of volunteer Extension Master Naturalists (EMN’s). All EMN’s share a passion and love of nature. They come from all walks of life and varying backgrounds, are trained and certified by the EMN organization in Kansas natural resource concepts and share their training and passion through a variety of EMN activities including restoration of natural areas, wildlife monitoring, citizen science and public awareness. In 2019, EMNs donated over 6850 hours of service worth more than $144,500 and directly impacted over 8700 people.

EMNs work on projects including Bluebird nest box monitoring and education, Junior Extension Master Naturalist education classes, Pollinator Prairie maintenance and outreach in Olathe, educational Nature Trail development, Water Quality monitoring and outreach, and land stewardship efforts with partners at Shawnee Mission Park and Ernie Miller Nature Center.

Keeping Up With the EMNs
The following photos are of recent activities from our Extension Master Naturalists as they volunteer and interact in our community.

Warisaema (Jack in the pulpit) seeds were spotted in a local park while an EMN was out and about.

Lacewing eggs were observed by an EMN. Lacewing larvae are predacious and will assist in controlling unwanted pests.

Sneezeweed (Helenium autumnale) is starting to bloom at the Pollinator Prairie in Olathe. Stop by September 24th to see the late summer native plants at the Hasta Luego Monarchs event.

The Water Quality project kicked off their first sampling event at Mill Creek!

EMNs are starting a new educational trail project at the Sunset Building. Stay tuned for more details!
Removing leaves and decaying vegetation from ponds helps to remove excess nutrients from the water. This will help with pond management in the long run.

**REMOVE NUTRIENTS**

If your pond has a benthic aerator, cleaning the filter before the cold weather will be helpful to reduce the stress on the motor if you want to keep it running in the freezing months. Turning off aerators for a few months during freezing weather can prolong their life span. Running aerators all winter long provides oxygen to fish to prevent any winter kills and assists in breaking down all the leaves that end up in ponds during the fall.

**AERATOR MAINTENANCE**

If your fish aren’t suited for our cold winters, come up with a plan to remove them from ornamental ponds. If you have stocked a species like tilapia, harvest the fish before the weather gets to freezing. Tilapia are sensitive to water colder than 55° F. Letting fish decay in your pond adds back in all the nutrients they consumed during the warm months. If you experience a fish kill, removing the decaying fish is helpful for that same reason.

**REMOVE FISH**

- **KINDLY PROVIDE THE FOLLOWING INFORMATION:**
  - **By Juju Wellemeyer | Natural Resources**
  - **POND TIPS FOR SEPTEMBER**
  - **WATER CONSERVATION**
  - **By Juju Wellemeyer | Natural Resources**

**WATER CONSERVATION**

It might be raining today, but it is hard to miss all the talk of droughts in the news. Here in Johnson County there are several ways residents can improve their water conservation practices to lessen the impact of future droughts and dry spells. Reducing the amount of municipally treated water you use helps save those resources for human consumption, helps to reduce your water bill, and can assist in reducing pollution runoff.

General fixes around your home to reduce leaks in pipes and toilets are a great place to start. Running appliances with full loads also helps reduce water usage. Our horticulture pages have guidance on watering gardens and lawns in a conservation-friendly manner. However, if you’re looking to level up beyond installing water-conserving toilets and low-flow shower heads, water conservation methods that capture water outside or re-use water for other purposes might be for you.

One method of water conservation includes collecting precipitation. Rain barrels function as a collection system for rainwater that can then be used to water lawns and gardens, or for other uses. The water is not considered potable (for human consumption) and has a limited window of time it will stay fresh, though it may still be good for some applications.

You can extend the length of time by using dark containers which block sunlight and reduce the growth of algae. Rain barrels are placed under a downspout but be aware if they overflow you could have issues with moisture in your basement. You can install a diverter or overflow fitting to redirect the water if the rain barrel gets full. Draining barrels for the winter will prevent cracking as the water freezes and thaws.

In partnership with the Johnson County Stormwater Management Program, Contain the Rain is a county-wide effort to make better use of our rain events and improve water quality for our communities. Many cities have cost-shares available for rain barrels through this program (check to see if your city has resources on the website). The program also has plans for rain gardens and native trees and plants to use in our area.

Other options for water conservation include reusing gray water. Gray water is leftover from washing machines, bathtubs, sinks, and dish washing. It can be collected or redirected for non-contact uses like irrigating lawns, trees, and other plants. The amount and quality of your gray water will determine the best use for it. Some systems can be installed to directly pipe the water from washing machines to plants outside. Gray water should be used the same day it is collected, should be applied to the soil (not directly onto the plants), and shouldn’t be used to water vegetable crops that touch the soil due to potential contaminants.

Cover crops are another great resource for conserving water. Cover crops trap water runoff which keeps more water in the surface soil. Leaving cover crops on the surface of a field after they die also slows down water and increases infiltration. Adding the cover crop into the soil as organic matter increases infiltration to roots. Residents may find it beneficial to use cover crops on a small scale as they provide the same benefits to backyard gardens as they do to agricultural systems.

Rain gardens, cover crops, and other drought-tolerant vegetation are beneficial ways to increase filtration, stabilize soils, and out-compete weeds. Vegetated areas allow rain to be absorbed instead of running off into our storm water system. Consider porous surfaces instead of concrete or asphalt when designing outdoor spaces to assist with capturing water runoff.

For additional water conservation information check out KansasRunsOnWater.org.
insect insights
By Juju Wellemeyer | Natural Resources

Carpenter Bees

Many reports of carpenter bees have been coming into the office so here’s a quick overview of carpenter bees:

- you can trap them or use pesticides approved for carpenter bee removal (dusts or foaming sprays applied to the nest holes)
- painting exposed wood is a longer-term solution to discourage them from using your deck as a nesting site
- carpenter bees are pollinators that don’t tend to sting
- territorial males will hover around but disperse after females are done constructing egg chambers
- females can winter over in the egg chambers and eggs will emerge next spring

Cicada Killers

Often mistaken for something more sinister (like murder hornets), cicada killers are considered gentle giants. Their large size and black and yellow markings make them seem alarming, especially as males tend to hover around intruders in their nesting area. Be assured though that the male cicada killer cannot sting, even though they might buzz you. While females can sting and have an intimidating-looking stinger, they don’t have nest guarding instincts, so they tend to fly off instead of defending areas. Their large stinger is used to paralyze cicadas, which they stuff into their ground nests to provide food for their young. Cicada killer adults have diets of pollen and plant materials and therefore are incidental pollinators.

Despite being a beneficial insect, some people would still prefer these wasps weren’t residents of their yards. As they dig their nesting tunnels, they can move quite a bit of dirt around and create issues for lawns and patios. What is the best way to dissuade them from hanging around? Bare, dry, and sandy soil in sunny spots is their preferred nesting habitat so improve conditions to create soil that is moist, add mulch to bare spots, and fill in bare areas with plants.

But wait, how will you tell if you have a Cicada Killer or an Asian Giant Hornet (“murder hornet”)? At first glance, Cicada Killers have broken lines of yellow on their black abdomen and a dull head while Asian Giant Hornets have bands of alternating brown and orange on their abdomen and a large bright orange/yellow head (see photo comparison from Illinois Extension). And you won’t need a second glance because we don’t have Asian Giant Hornets in Kansas. Based on what is known about their current preferred climate conditions (mild and rainy), Asian Giant Hornets aren’t predicted to be able to thrive in our area.

The other hornet in our area is the Baldfaced Hornet, which is smaller and is black with some white markings. Bald-faced hornets typically build large paper nests up in trees. European hornets can also look like Cicada Killer Wasps but are smaller in size and have not been recorded in Kansas.
As a parent of a nine-year Johnson County 4-H'er, I thought I knew everything when it came to the fair. Wow what a reality check this year has been! Now as a 4-H Agent, I realize all the intricate and fine details that go into pulling off something as grand and extravagant as a fair. From the outside, it appears so seamless. Now I understand all the working parts that must run smoothly together to create this amazing opportunity for our 4-Hers.

Fair activities always begin before the fair with Public Fashion Reveal. This event is a great opportunity to see all the amazing products 4-H'ers either constructed from scratch or created from selective budget-savvy purchases. During Fashion Reveal, 4-H'ers have an opportunity to showcase their projects in front of family and friends.

During Public Fashion Reveal, Miss and Mr. 4-H winners were announced. This year a Miss 4-H Runner Up was also chosen since there were so many young ladies that applied for the program. This year’s Miss 4-H is Kylie Rogers, Prairie Moon Club, Miss 4-H Runner up is Fern Schrotberger, Oxford Hustlers Club, and Mr. 4-H is Ryan Brethour, Great Plains Club. From start to finish the application and selection process is intense and time consuming.

You may have seen our Miss and Mr. 4-H during fair week as their many duties include Cloverbud judging, handing out awards at livestock shows, assisting at the project and livestock auction, and more.

Of course the 4-H building at the fairgrounds is jam-packed with so many amazing projects, mostly the static projects. From Arts and Crafts, to Woodworking and everything in between, the amount of time, effort, energy and heart our 4-H'ers put into their static projects shows by the many red, blue, and purple ribbons they earn. The Grange building houses all of our Flowers and Plant Science projects including forestry, crops, fruits, and vegetables.

During foods judging, it is always a lot of fun to see the creativity and hard work a 4-H'er puts into their recipe whether its cookies, breads, cakes, cinnamon rolls or preserved foods such as canned pickles, jams and salsa. Thank you to all who attended the foods auction to support further projects and activities in our foods program!

Small animal judging and shows included dog, poultry, and doves/pigeons. Dogs are judged in four categories including agility, rally obedience, showmanship and obedience. Poultry includes multiple classes such as chickens, ducks, geese, turkeys as well as general showmanship. Pigeons and doves are judged on performance and varieties of “fancy.”

Rabbits are typically included in small animals but this year rabbits were not allowed at the fair because a very contagious and fatal disease called Rabbit Hemorrhagic Disease (RHD) was detected in Leavenworth County. No rabbit shows were allowed to take place within a 50-mile radius of the detected disease.

Livestock judging and shows include horse, beef, dairy cattle, bucket calf, dairy and meat goat, sheep, and swine. Competition for every species typically spans over two-to-three days at the livestock arena or the main event arena (horse). It is amazing to watch the interactions between 4-H'ers and their animals.

Working with animals can be so unpredictable and it’s interesting to see how a 4-H'er reacts and responds to uncertain instances and are able to think on their feet and make the best out of the situation. You quickly recognize how all the training they have been through has prepared them for those unplanned and unexpected moments. Livestock really is a program that instills confidence and reliability in a 4-H'er.

Public presentations are a part of fair that aren’t necessarily well-known. They always take place on the Thursday morning of fair week and occur across the street from the 4-H building at the First Presbyterian Church. This part of fair gives 4-H'ers public speaking experience. They can give a project talk, and illustrated or demonstration talk, or a multimedia presentation. This portion of fair is a great example of all the diverse opportunities our fair has to offer to 4-H'ers!

Project Auction and Livestock Auction are when a 4-H'er can see their project come full circle and reap the benefits of a year of hard work! We have amazing 4-H'ers in our community who come together two days of fair to purchase static projects such as baked goods, woodworking, art, and photos or pay premiums to support 4-H'ers' animals. 4-H'ers typically use the money for college and education savings, or funding next years’ projects/animals.

No fair would ever be complete without the food! If you have ever visited the 4-H Food Stand for lunch, dinner or even a bottle of water, thank you! Ever JoCo 4-H Club has a part in running it, so it truly is a group effort that takes a LOT of hard work and man-power. Running a grill in over 100 degrees of Kansas summer heat is not for the faint of heart! Proceeds from the food stand go back to the county council budget to support 4-H projects and activities.

A really fun way to wrap-up fair is by participating in or watching the Ambassador’s Barnyard Olympics! Any one from the public can come together in a team of four members to compete in this farm-theme inspired obstacle course. Activities in this year’s event included a haystack, bucket brigade, bucket flip, watermelon eating, and roping a steer. The funds raised from this activity go back to the Ambassador’s camp scholarship program and the top three winning teams were awarded gift cards to Quik Trip.

Wow, what a hectic and HOT week of fair we had this year, but it was an incredible experience from the “insider” perspective. I also had no idea how much help was needed from our amazing volunteers to make the fair run seamlessly. Without their hard work, dedication, expertise and tenacity this event would not be as successful as it is!
What is 4-H?
4-H is a Network of Families That Grows Great Kids. 4-H clubs have a mix of teens and younger youth, as well as a variety of interest and activities. Most meet once a month with all members. At the meeting they make decisions about community service, hear presentations from guest speakers and other 4-H members, and learn about leadership, citizenship and public speaking. This is all done in an environment of a youth/adult partnership.

Why 4-H?
Raising great kids is a challenge, but it’s easier when you have a team of people behind you. 4-H clubs are groups of families that do just that. By working together, families share knowledge and interests to help kids learn important skills and values.

How to Join:
Joining 4-H is as easy as 1-2-3!
1. Check out all the Clubs in Johnson County
2. Visit 2-3 clubs - every 4-H Club is unique and it’s important to find a good fit for your family.
3. Submit an online enrollment

SPIN Club stands for Special Interest Club. These are short-term and focus on one specific topic. The first two SPIN Clubs offered in Johnson County were Reading and BB Gun. Have a special skill or talent you would like to share with youth? Why not volunteer to lead a short term program? Please check out our SPIN View our SPIN Club overview brochure on our Extension website.

Projects
4-H offers a wide variety of subject matter through its many projects. Youth enrolled in community clubs will have the opportunity to take part in many of the projects with the assistance of a project leader. Project clubs will focus on one or two specific project areas and will provide a very in-depth look at the project. Visit our Projects page on our Extension website.

Questions About Joining 4-H:
Call the Extension Office at 913-715-7000 or email joco4-h@jocogov.org.
First Friday e-Call

K-State Research and Extension Community Vitality state specialist Nancy Daniels offers a monthly first Friday e-Call to support and promote the entrepreneurial successes from across the state. The purpose of the First Friday e-Call is to increase the local community’s knowledge of the experts, education, and economic resources available to help small businesses and entrepreneurs and to share innovations in community development.

Register at: bit.ly/3pr2wl6

by Tara Markley | Extension Director

September 2, 9:30 AM - 10:30 AM

Utilizing Multiple Tools to Develop Moderate Income Housing

Audree Aguilera, City Administrator, Valley Falls, will share her experiences of piecing together multiple tools to create new housing. These tools include: KDHE Brownfields, Bond Issues, Neighborhood Revitalization Areas (NRAs), Rural Housing Incentive Districts (RHID), Land Banks, and Moderate-Income Housing Grants.

October 7, 9:30 AM - 10:30 AM

Micro-Internships for On-Demand College Students, a Tool to Help Small Business

Tim Peterson, Senior Project Director, Kansas Board of Regents will tell how a small business, non-profit or other organization can utilize a Kansas college student to expand their work and complete projects. More than 500 students are registered for the program and waiting to help provide on-demand project help for Kansas employers. Most projects are 10-40 hours long.

November 4, 9:30 AM - 10:30 AM

No Budget Marketing - well, just a LITTLE!

Lea Ann Seiler, Director, Hodgeman County Economic Development, will share Boots-On-the-Ground marketing tips for those with little or no budget and even less time. No matter how big or small your community is, it takes a little planning and forethought to tell a great story and get the word out.

December 2, 9:30 AM - 10:30 AM

Commercial Rehab Grants for Your Communities

Dustin Gale, CDBG Specialist, Department of Commerce will share how private property owners can benefit with Commercial Rehab grants. The purpose of the grants is to help cities improve the quality of their downtown commercial districts.

RETIREMENT PLANNING TODAY

An Educational Course for Adults- Ages 50 to 70

By Joy Miller | Family & Community Wellness

Why Financial Education is Important

Due to recent tax law changes, an uncertain future for Social Security and the shift toward employee-directed retirement plans, the need for sound financial strategies has never been greater. In straightforward language, this course explains time-tested strategies that help you to make informed decisions. Whether your objective is to build a nest egg, protect your assets or preserve your lifestyle throughout retirement, this course helps you plan your future with confidence.

The Difference between Education and Information

You can find trendy financial news almost anywhere, but it is difficult to use this information to make informed decisions and create a plan for your retirement. This course is designed to save you time by delivering comprehensive, objective knowledge you can easily apply to your situation.

Who Should Attend?

Retirement Planning Today® contains something for everyone. A qualified financial professional will address financial issues that pertain to the self-employed as well as employees of corporations and government agencies. The course is designed to teach you how to build wealth and align your money with your values to accomplish your goals in life.

Participants will learn how to:
- Create a plan to retire early
- Integrate your finances with your goals and values
- Use the latest tax law changes to your advantage
- Properly allocate your assets within your employer retirement plan
- Use 5 investment strategies to help minimize risks and maximize returns
- Ask the right questions when evaluating insurance coverage
- Ensure your estate plan still functions properly under new laws

Whether you plan to retire 20 years from now or have just recently retired, the information you learn in this class can deliver rewards throughout your lifetime.

Statements:
1) Discover more about planning a secure retirement than most people learn in a lifetime.
2) Learn to avoid the 10 biggest retirement planning mistakes.
3) It takes more than money to live a “rich life.” Consider how you would like to spend your time and money during retirement.

Register at johnson.k-state.edu
The Kitchen Restore Project of the Johnson County Master Food Volunteers strives to improve the nutrition, food safety awareness, health, and quality of life of Johnson County residents through the provision of basic kitchen items to those with minimal or no resources for cooking. The Kitchen Restore Project was started in fall of 2021 and has collected and donated numerous pots, pans, dishes, and other kitchen essentials back to the community since its inception. The project works with food banks, churches, Head Start programs, local outreach organizations, and other service providers to support community members with a fully prepared kit or participant self-selection to supplement their current needs.

Do you have items to donate or work with individuals who need basic kitchen items and could benefit from our project? Contact us at 913-715-7000 or foodhelp@jocogov.org.

We are seeking donations of new or gently used kitchen items or financial contributions to help support the mission of the project. Please refer to the full list of items we accept below. If you would like to make a donation, contact our office at foodhelp@jocogov.org or bring your new or gently used items to one of our scheduled donation drop off times in September. We kindly ask that you bring only the items that are on the list of items accepted as we are unable to accept items that are not on our list.

**September Donation Drives**

**Location:** Johnson County Northeast Office in Mission – the entrance is on west side off Martway Street

**Dates:** September 14th 4:00pm-6:00pm & September 26th 10:00am-12:00pm

Stay tuned for future donation drives!

**What Items Do We Accept?**

- Measuring Spoons
- Measuring Cups (Dry and Liquid)
- Cutting Boards/Mats
- Colanders/Mesh Strainers
- Mixing Bowls
- Paring Knives
- Chef Knives
- Spatulas
- Rubber Spatulas
- Slotted/Stirring Spoons
- Whisks
- Tongs
- Vegetable Peelers
- Pot Holders
- Plastic Pitchers
- Handheld Can Openers
- Baking Dishes
- Pans (Lids if Available)
- Skillets (Lids if Available)
- Pots (Lids if Available)
- Baking Sheets
- Glass Storage Ware with Lids
- Dinner Plates
- Forks/Knives/Spoons
- Cereal Bowls
- Drinking Glasses/Cups
- Coffee Mugs
- Kids Plastic Plates/Cups/Utensils
- Dish Towels
- Financial Donations

**Questions? Contact the Johnson County Extension Office at (913) 715-7000, or email foodhelp@jocogov.org.**

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