In Cherokee County Extension and Research, we want to learn more about the challenges that Cherokee, County are facing and determine how we can help address those challenges. We listen, learn, and work together with the people from our state and community to build a strong county.

K-State Research and Extension builds partnerships and provides research-based learning opportunities to improve the quality of life in Kansas. Extension programs present useful information related to agriculture, home economics, youth development, family life, business and economics, healthy living, and much more.

We take programs to schools, gardens, community centers, farmers markets, downtown events and other places.

Our online resources offer you a way to quickly access and explore the broad variety of information and educational programs available.

Connect with us when you need to make decisions that affect your family, community, business, or farm. We look forward to serving you!

K-State Research and Extension is an equal opportunity provider and employer.
We welcome you to join us for an informal field day tour at our Research Station. Cherokee County Ag. Agent Dale Helwig will be discussing different fertility rates, frequency of fertility, timing of cutting, and comparison of two crabgrass varieties.

21st ANNUAL BEEF STOCKER VIRTUAL FIELD DAY
OCTOBER 1, 2020
(Watch on Zoom)

K-State Animal Sciences and Industry professor and beef cattle extension specialist, Dale Blasi says, “Due to increasing concerns around this evolving situation and standing by our commitment to keeping the safety of our participants, volunteers and partners as our top priority, — we've made the decision to transition this year's Field Day to an online format.”

Sign up at ASI.KSU.EDU/StockerFieldDay

The day will start with a welcome at 9:30 a.m. and will conclude around noon. Topics for this year's agenda include:
Beef Cattle Market Outlook
Making Alternative Ration Ingredient Changes Work
Nutrition and Management — Limit Feeding
Economic Aspects — Limit Feeding

Registration is free. Register online by Sept. 24.
We are pleased to welcome K-State Research and Extension Wildlife Specialist Dr. Drew Ricketts to Columbus to present at our Coyote Trapping and Predator Calling program held on September 24, 2020. 114 W. Country Rd, Columbus, KS (4-H Building) 6:00 PM.

Discussion Topics will be presented on coyote biology, coyote management, trapping methods, predator calling methods and more. Refreshments will be served.
Sponsored by: Dr. Curtis Gregory, Columbus Vet Clinic.

**Upcoming Hunting Seasons:**

**Dove Season (mourning and white-wing)**
09/01/2020 - 11/29/2020
Location: Statewide
Area open: Statewide
Daily bag limit: The daily bag limit of 15 applies to mourning and white-winged doves, single species or in combination
Possession limit: 45 (mourning and white-winged doves)

**Deer Season Dates:**
*Youth and Disability 09/05/2020 – 09/13/2020 Location: Statewide*
Youth 16 and younger, who possess a valid deer permit, may hunt during this special deer season only while under the immediate supervision of an adult 18 or older.
Any person who possesses a valid deer permit and has a permit to hunt from a vehicle pursuant to KAR 115-18-4 or a disability assistance permit issued pursuant to KAR 115-18-15 may also hunt during this season. All resident and nonresident permits are valid, and equipment restrictions designated on permits apply. Hunter orange is required.
*Muzzleloader 09/14/2020 – 09/27/2020 Location: Statewide*
*Archery 09/14/2020 – 12/31/2020 Location: Statewide*
*Pre-rut Whitetail Antlerless-only: 10/10/2020 - 10/12/2020 Location: Statewide*
Any permit that allows the harvest of a white-tailed antlerless deer is valid during this season.
*Regular Firearm: 12/02/2020 - 12/13/2020 Location: Statewide*

**Turkey Season Dates:**
*Fall Turkey: 10/01/2020 - 11/10/2020 Location: Units 1,2,3,5,6 (Unit 4 CLOSED)*
*Archery/Shotgun*
**Shooting Hours:** One-half hour before sun- rise to sunset.
**Legal Equipment:** Shotguns using shot sizes 2-9; long, recurve or compound bows and crossbows
**Permit Limit:** Each hunter may obtain no more than one turkey permit. Fall turkey permits are valid for both male and female turkeys. Dogs may be used in fall season.
**Bag Limit:** One turkey, either sex, per permit.
Wheat is considered a highly responsive crop to band-applied fertilizers, particularly phosphorus (P). Application of P as starter fertilizer can be an effective method for part or all the P needs. Wheat plants typically show a significant increase in fall tillers (Figure 1) and better root development with the use of starter fertilizer (P and N). Winterkill can also be reduced with the use of starter fertilizers, particularly in low P testing soils.

**In-furrow fertilizer application**
Phosphorus fertilizer application can be done through the drill with the seed. In-furrow fertilizer can be applied, depending on the soil test and recommended application rate, either in addition to or instead of, any pre-plant P applications. The use of dry fertilizer sources with air seeders is a very popular and practical option. However, other P sources (including liquid) are agronomically equivalent and decisions should be based on cost and adaptability for each operation. When applying fertilizer with the seed, rates should be limited to avoid potential toxicity to the seedling. Air seeders that place the starter fertilizer and seed in a 1- to 2-inch band, rather than a narrow seed slot, provide some margin of safety because the concentration of the fertilizer and seed is lower in these diffuse bands. In this scenario, adding a little extra N fertilizer to the starter is less likely to injure the seed - but it is still a risk.

What about blending dry 18-46-0 (DAP) or 11-52-0 (MAP) directly with the seed in the hopper? Will the N in these products hurt the seed?
The N in these fertilizer products is in the ammonium-N form (NH₄⁺), not the urea-N form, and is much less likely to injure the wheat seed, even though it is in direct seed contact. As for rates, guidelines provided in the table above should be used. If DAP or MAP is mixed with the seed, the mixture can safely be left in the seed hopper overnight without injuring the seed or gumming up the works. However, it is important to keep the wheat mixed with MAP or DAP in a lower relative humidity. A humidity greater than 70% will result in the fertilizer taking up moisture and will cause gumming or caking within the mixture.

How long can you allow this mixture of seed and fertilizer to set together without seeing any negative effects to crop establishment and yield?
The effects of leaving DAP fertilizer left mixed with wheat seed for various amounts of time is shown in Figure 2. Little to no negative effect was observed (up to 12 days in the K-State study) as long as the mixture is stored at a relative humidity less than 70%.

Now is the time of the year to be testing soil and hay.
We eat food every day. Keeping food safe is a daily event, too.

Autumn Salad Garden
If growing vegetables was not in your summer gardening plans, the time is right to build a nice set of greens this fall. Early September is a good time to plant salad crops such as lettuce, radishes, spinach, turnips, mustard seeds and other greens.

Tips for fall vegetables include:
- Plant fall crop seeds slightly deeper
- Water frequently until seedlings start to emerge
- Apply a light sprinkling of peat moss, vermiculite or compost directly over the row to prevent a crust from forming when watering heavy soils.
- Reduce watering after plants emerge.

September is Food Safety Education Month

“We eat food every day. Keeping food safe is a daily event, too.”
Using basic, safe food handling practices can eliminate many opportunities for foodborne illness.

- **Clean.** Wash hands and keep cooking surfaces clean.
- **Cook.** Use a food thermometer to ensure foods are cooked to a safe internal temperature, and to keep hot foods hot.
- **Chill.** Put leftovers in the refrigerator promptly and keep cold foods cold.
- **Separate.** When preparing and serving meals, keep raw foods away from cooked and ready-to-eat foods.

“Handwashing is your primary defense against spreading disease, not only for food safety, but overall health.”
“Always wash your hands before, during and after handling any food.”
About 1 in 2 adults live with a chronic disease which means that only half of adults get the physical activity they need to help reduce and prevent chronic diseases. Investing in physical activity makes sense. Physical activity is beneficial for children because it reduces risk of depression, improves bone health, improves attention and some measures of academic performance and so much more. Adults benefit as well! Adults who are physically active have lower risks of high blood pressure and stroke, improves mental health, prevents weight gain, improves sleep and more!
In these uncertain times, it is important to stay healthy and active.

Eat Better Feel Better
Adults of all ages have different nutrition and physical activity needs as their lives and bodies change. A strong and healthy body can provide many benefits. As you age, maintaining healthy habits is an important way to lower your risk for cancer, diabetes, heart disease and hypertension.
Make your food and beverage choices a priority and be physically active to feel and look better. Maintaining healthy habits is an important way to lower health risks.

Tips for a healthy start:
- Eat a variety of colorful fruits and vegetables
- Make half your plate vegetables and fruits
- Stay Hydrated!
- Choose healthy beverage options
- Eat lean meats and plant based protein foods
- Make half your grains whole grains.
- 30-60 minutes of physical activity a day.
**Fall Harvest Salad**

**Ingredients:**
- 5 cups torn leaf lettuce
- 2 ½ cups spinach leaves
- 1 medium red apple, chopped
- 1 medium pear, chopped
- 4 teaspoons lemon juice
- ¼ cup dried cranberries
- ¼ cup feta cheese crumbles
- ½ cup chopped walnuts

**Dressing:**
- 2 ½ tablespoons olive oil
- 2 tablespoons balsamic vinegar
- 1 ½ teaspoons Dijon mustard
- 2 teaspoons Kentucky honey
- ½ teaspoon salt

Combine leaf lettuce and spinach leaves in a large salad bowl. Mix apples and pears with lemon juice in a small bowl and add to lettuce mixture.

Prepare dressing by whisking together the olive oil, balsamic vinegar, Dijon mustard, honey and salt; pour over lettuce mixture and toss to coat.

Sprinkle salad with cranberries, feta cheese and walnuts. Serve immediately.

Yield: 8, 1 cup servings

Nutritional Analysis: 130 calories, 9 g fat, 1.5 g sat fat, 240 mg sodium, 12 g carbohydrates, 3 g fiber, 7 g sugar, 3 g protein.

Source: https://fcs-hes.ca.uky.edu/recipe/fall-harvest-salad

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**Apple Butter**

Use Jonathan, Winesap, Stayman, Golden Delicious, MacIntosh, or other cooking varieties. This recipe may be canned in half-pint, pint or quart jars. Yield: About 8 to 9 pints

**Ingredients:**
- 8 pounds apples
- 2 cups apple cider
- 2 cups cider vinegar (5%)
- 2¼ cups white sugar
- 2¼ cups packed brown sugar
- 2 tablespoons ground cinnamon
- 1 tablespoon ground clove

Wash, remove stems, quarter, and core fruit. Cook slowly in cider and vinegar until soft. Press the fruit through a colander, food mill, or strainer. Cook fruit pulp with sugar and spices, stirring frequently.

To test for doneness, remove a spoonful and hold it away from the steam for 2 minutes. It is done if the butter remains mounded on the spoon.

Another way to determine when the butter is cooked adequately is to spoon a small quantity onto a plate. When a rim of liquid does not separate around the edge of the butter, it is ready for canning.

Fill hot half-pint, pint, or quart jars with hot product, leaving 1/4-inch headspace. Remove air bubbles and adjust headspace if needed. Wipe jar rims. Apply lids and rings fingertip-tight. Process in a boiling water canner or steam canner according to Table 2. Turn off heat and remove canner lid. Let jars cool 5 minutes. Remove jars from canner; do not retighten bands. Cool completely, check seals, label, and store.

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**Table 2. Recommended processing times in a water bath canner or steam canner**

<table>
<thead>
<tr>
<th>Product</th>
<th>Jar size</th>
<th>0-1,000</th>
<th>1,001-3,000</th>
<th>3,001-6,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple butter</td>
<td>Half-pints or pints</td>
<td>5</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Apple jelly</td>
<td>Half-pints or pints</td>
<td>5</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Apple juice</td>
<td>Pints or quarts</td>
<td>5</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Apple pie filling</td>
<td>Pints or quarts</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Applesauce</td>
<td>Pints</td>
<td>15</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Sliced apples</td>
<td>Pints or quarts</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Spiced apple rings</td>
<td>Half-pints or pints</td>
<td>10</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Spiced crab apples</td>
<td>Pints</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Crabapple jelly</td>
<td>Half-pints or pints</td>
<td>5</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Reduced-sugar apple butter</td>
<td>Half-pints or pints</td>
<td>15</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Apple chutney</td>
<td>Pints</td>
<td>10</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Harvest Time Apple Relish</td>
<td>Half-pints or pints</td>
<td>10</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>