# K-STATE Research and Extension

# Meadowlark District

## Livestock and Natural Resources



#### **Holton Office**

114 W 5th St. Holton, KS 66436-1778 785-364-4125

#### **Oskaloosa Office**

P.O. Box 326 100 E Washington Oskaloosa, KS 66066-0326 785-863-2212

#### **Seneca Office**

1615 Branch St.
Seneca, KS 66538-1504
785-336-2184

#### **District Office Hours:**

Open Monday-Friday 8:00 AM-Noon; 12:30-4:30 PM

Closed on designated holidays

www.meadowlark.k-state.edu



Ross Mosteller, Extension Agent

#### Safety Considerations on the Ranch

Agriculture is one of the most-dangerous occupations in the United States, working with live animals, chemicals, and equipment. Emergency injuries are often what comes to mind when thinking about safety, but long-term consequences of loud machinery, heavy-lifting, and chemical exposures are also a concern. Ranchers vaccinate livestock, recognizing prevention is often easier than treatment, so prevention should be a concept to implement for ranchers themselves as well.

- Think about human safety first when working with live animals. Communicate the plan and any helpful information to workers to reduce risk of injury. Ranchers work alone much of the time, so it is important to keep someone updated on location in case of an emergency.
- Develop an emergency action plan for the operation. Therefore, in case of an emergency, emergency help can access the necessary information to ensure proper help is provided. These typically include a map of the operation and important phone numbers.
- When using equipment, do a quick assessment before getting started. Always shut off machinery before attempting to work on it.
   When hauling livestock, check the floor and tires of the trailer, working facilities, as well as the weather, before loading animals.
- Wear personal protective equipment (PPE).
   This may include steel-toed boots, a mask, goggles, gloves, or ear protection. It is easy to get caught up in the work that needs to be done and forget about gloves when handling animal health products/chemicals, or ear protection around loud machinery/livestock, but this done to prevent long-term health issues.

#### **Checklist to Pasture Turnout**

When preparing to turn your herd out to pasture, there are a few management decisions that need to be made. Having a simple checklist is an easy way to make sure you are prepared. Here are a few things to consider before opening the gate.

- A vitamin and mineral supplement should be provided to ensure livestock receive all necessary micronutrients for maximized performance. Quality pasture will provide most of an animal's needs, but to ensure there are no gaps, a high-quality mineral supplement should be available.
- Fences make good neighbors! Keeping livestock out of crop fields and neighbors' pasture is important in pasture management. Check fences to ensure they are in good condition before turnout and continually checked throughout the grazing season
- Proper timing of pasture turnout is critical for optimal forage production. Monitor grazing readiness of the predominate grass species. Especially note cool season versus warm season grasses. If forage growth is not adequate, the start of grazing may need to be delayed.
- Make sure livestock have access to adequate drinking water. As temperatures increase, water becomes imperative for animal welfare and performance. Be sure to check the water level and access to ponds, tanks or troughs before turning out, and continuing throughout the season.
- Water quality is a concern during all times of the year, but even more so during the summer months. Water troughs need to be cleaned routinely to prevent algae growth and to remove manure. Watch for bluegreen algae, as this is toxic and can kill an animal in as little as 24 hours.
- Administer any necessary treatments before turning out to pasture. Fly prevention options include; ear tags, pour-on product and some minerals contain fly prevention ingredients. Dewormer and vaccines should be administered at this time also.

# Crops and Soils



**David Hallauer,** Extension Agent

#### Tar Spot in 2025?

Tar Spot was first confirmed in mid-June in Northeast Kansas during the 2024 growing season. While earlier than expected, and earlier seen in the past, it underscored the fact we have a lot to learn about this disease – and vigilant scouting is important! If you want to monitor disease potential in 2025, consider a couple of resources.

The first is the Crop Protection Network Tar Spot website: <a href="https://cropprotectionnetwork.org/maps/tar-spot-of-corn">https://cropprotectionnetwork.org/maps/tar-spot-of-corn</a>. The maps here are updated by University Plant Pathologists as they confirm the disease during the growing

season. If you followed Tar Spot at Corn ipmPIPE in the past, this will be a new bookmark for progress of the disease in 2025 (the Corn ipmPIPE site is still available if you want to look at previous years). If you think you've found Tar Spot and it's not already updated on the map, drop me a line. We can discuss getting samples to the Plant Pathology Lab for confirmation so the map can be kept up to date.

A second option to give some level of 'prediction' for disease potential for is an app (Android and Apple platforms) called Tarspotter. It uses GPS coordinates (you can put in your own fields) to determine if weather has been favorable for development of the Tar Spot fungus during flowering. Models in the app use temperature, dewpoint, humidity, and precipitation to predict favorable conditions for most corn growing regions. Based on these predictions and crop phenology, a site-specific risk prediction is generated. It won't replace field scouting, but it can help direct scouting efforts.

Tar Spot isn't here early enough every year to cause us trouble, but some years it could be. Staying ahead of disease progression is important for making management decisions to combat this increasingly troublesome pathogen.

#### **Corn Leafhopper Scouting**

If you heard anything this winter about Corn Stunt Disease, a new pathogen found in Kansas corn fields last summer, you likely also heard about its insect vector: the corn leafhopper. It plays a prominent role in the movement of the disease and is therefore a focus of scouting efforts to determine when it might be active and if disease transmission could be taking place.

Trapping through the winter suggested presence of the leafhopper across northern Kansas was minimal at best. Increased growing season scouting efforts are being initiated again this spring, with three sites across NEK. If leafhoppers are detected, information will be shard via our Meadowlark Extension District Agronomy blog site at: <a href="https://blogs.k-state.edu/meadowlarkagronomy/">https://blogs.k-state.edu/meadowlarkagronomy/</a>.



#### Grazing Height 'Rules'

Sometimes we use terms like 'minimum stubble height' or grazing 'rules of thumb' to help growers better manage their forage resource – but often with little explanation. A University of Arkansas Extension Forage Specialist shared an example in a February Progressive Forage article I think explains a little bit about why we use these 'rules'.

In his example, he notes how leaving a four inch stubble (mixed grass pasture, likely cool season grasses) supported 15 days of grazing while leaving only two inches supported 23 days of grazing. It makes sense: if you graze more inches of grass, you'll extend the days available for a paddock to be grazed.

While he contends this can be done on occasion, the longer term effects might not be good. Citing a Virgina study (there are multiple other ones that could be referenced as well...), he shared that while stands harvested at two inches *did* yield well, the stands began to degrade at the end of the first season, with a four inch harvest height balancing forage production and stand persistence. He also noted how when you start to account for the aforementioned degradation, the grazing days of the stand grazed lower actually declines to 12 days of grazing. It's a perfect example of short term gain – long term loss.

Most any grazing rule of thumb comes with a little 'flexibility' – but they're also provided for a reason. Failure to at least consider them may well result in longer term results we aren't happy with.

### Horticulture



Laura Phillips, Extension Agent

#### **Planting Your Garden**

It is that time of year again! The weather is warming and plants are starting to pop up. As you get ready for the growing season, you may be wondering when and how to get your garden started. Luckily K-State has some resources to help you get your garden off on the right foot.

#### When to plant your garden

You may already know that certain vegetables prefer warm weather while others prefer cool weather. Some crops have two planting windows so you can get twice the harvest in one year!

This can make it tricky when determining when to plant your garden. K-State offers the Vegetable Planting Guide (https://bookstore.ksre.ksu.edu/pubs/vegetable-garden-planting-guide-revised MF315.pdf) to help you plan out your garden calendar. This tool can also help you determine succession planting, which refers to replacing a crop with another one as the seasons change to get maximum yield in your garden.

#### **Transplants or Seeds?**

As you start planting your garden, you might be wondering – when do I put seeds directly into the garden and when should they be started inside? Starting seeds indoors can prolong your growing season. If warm season crops like tomatoes and peppers cannot germinate in colder weather, they will not start sprouting and growing until May. But if you start them inside where it is warm, they can get a head start on growing, hopefully lending to more produce.

While it might seem like a good idea to start everything inside, some plants simply do not thrive when transplanted. These plants tend to have delicate root systems that cannot survive disturbances. Beans, peas, and corn are common victims of this transplant shock. Another issue is that root vegetables can lose their fibrous taproot during transplanting, and while the plant may survive, the main harvest is lost.

Other plants germinate so quickly that there is not always a need to start them inside. For example, lettuce can germinate in the warm temperatures of late spring and early summer within a few days. Conversely, if you are planting in the early spring, you may want to use transplants, as lettuce can take up to two weeks to germinate in colder temperatures.

If you buy a packet of seeds, look on the back for growing instructions. It should tell you if the seeds need to be directly sown into the soil or if you can start them inside. Many plants can be grown either way, and it is up to you how you want to plant them. As we enter spring, take a moment to research and determine which of your plants can be started inside, and which will do better directly sown into the soil to maximize your garden's productivity this year. Your garden will thank you for it!



#### **Plants to Directly Sow Outside**

- Beans
- Beets
- Carrots
- Parsnips
- Peas
- Radish
- Rutabagas
- Sweet corn
- Turnips

# Plants That Do Best Started Indoors

- Brussels sprouts
- Celery
- Eggplant
- Leeks
- Melons
- Pepper
- Tomatillo
- Tomato

# Plants That Can Be Either Sown Directly or Started Indoors

- Broccoli
- Cabbage
- Collard
- Cucumber
- Endive/Escarole
- Kale
- Lettuce
- Pumpkin
- Spinach
- Squash
- Swiss chard

# Food, Nutrition, Health and Safety



Cindy Williams, Extension Agent

#### COMET™ Community Trainings—2 Workshops to be Held

What is COMET™ and why is it important? COMET™ stands for changing our mental and emotional trajectory. Do you know what to do when concerned about someone's mental or emotional well-being? Do you notice that someone doesn't seem like themselves and you don't know how to help them?

COMET™ provides a natural way to talk with a friend, a neighbor, or an acquaintance about difficult topics. In this training you will learn a conversational guide and the importance of being "the other person". You

will also learn and practice the COMET™ intervening questions and plan how you will use COMET™ to have conversations about another's well-being.

Two training sessions will be held on **Wednesday, June 11**, at the Oskaloosa City Hall, located at 212 W Washington Street, Oskaloosa. The first training will be the Regional Trainer Workshop, that will be held from 1:00 to 4:30 PM.

The second training will a Community Training that will be from 5:30 to 7:00 PM, at the same location as the first training session. There is **NO** charge for either of these trainings, but we do ask that you register for one or both trainings no later than **Wednesday**, **June 4**, using these links, Regional Trainer Workshop—<a href="https://forms.gle/bx5nGt1DXkqgxjV48">https://forms.gle/bx5nGt1DXkqgxjV48</a> or Community Training—<a href="https://forms.gle/CHvpLd3NT9Y2soan8">https://forms.gle/CHvpLd3NT9Y2soan8</a>. Lite refreshments will be served at both training sessions.

COMET™ recognizes our rural values of neighbor helping neighbor, and communities being their own best resource-especially when concerned about another's emotional and mental well-being. This COMET™ Training is sponsored by the Health Innovations Network of Kansas with support from KDADS Suicide Prevention Grant and hosted by K-State Research and Extension—Meadowlark Extension District. For more information contact Cindy Williams at 785-863-2212 or <a href="mailto:csw@ksu.edu">csw@ksu.edu</a> or Sarah Gideon at 785-364-6063 or <a href="mailto:sgideon@stormontvail.org">sgideon@stormontvail.org</a>.

#### Food and Youth Cooking Opportunity Coming Soon!

For many years we have conducted a Cooking Camp for young people ages 8 to 12. This cooking camp has helped youth learn valuable, lifelong cooking skills and practice those skills by cooking various foods. This camp will be held on **Wednesday, May 28** through **Friday, May 30**, from **9:00** to **11:30 AM**, at the Oskaloosa Methodist Church, located at 402 Liberty Street.



This year's theme will be Taste of Kansas and focusing on foods grown in Kansas, along with other related hands-on cooking and other fun food related activities. There is NO charge to attend this camp, but registration is required and limited to the first 24 youth signing up. We do ask that youth attend all three days of camp to get the best learning experience.

For further information, please contact Cindy Williams at 785-863-2212 or <a href="mailto:csw@ksu.edu">csw@ksu.edu</a> or Debbie Hochard at 785-393-3761 and enrollment will be conducted online and coming out soon!

#### Time to Test those Pressure Canner Gauges

Now is the time to get dial gauges tested on pressure canners. Here are some reminders. Most Extension offices, including all three Meadowlark Extension District Offices located in Holton, Oskaloosa and Seneca, have the Presto® Gauges Testing Unit. This can test pressure gauges on these brands--Presto®, National, Maid of Honor, and Magic Seal.

This testing unit cannot test ALL American pressure gauges. Newer models of the All-American canner have both regulator weights (weighted gauge) and the dial gauge. This canner is actually a weighted gauge canner. The weight is more accurate than the gauge and customers should use the weight to achieve the needed pressure. If you have an older All American canner the petcock on the right can be replaced with a weighted gauge. To do this contact the Wisconsin Aluminum Foundry at <a href="https://www.allamerican1930.com">https://www.allamerican1930.com</a>.

If the weight begins to rock at the desired pressure and the gauge is off by more than 2 psi, the company recommends replacing the gauge. The dial gauge is now used as a reference to know when the unit is at 0 psi and can safely be removed.

Call your local Extension office before going in to test your gauge to be sure that the appropriate person is in to do this testing. There is no charge for testing your gauge and should be done at least once a year or if you have dropped your lid or other sudden movements have occurred.

For further information and questions, contact Cindy at 785-863-2212 or <a href="mailto:csw@ksu.edu">csw@ksu.edu</a>. When you are at the office be sure to check out the many KSU publications on a variety of produce. Many of these publications contain the various ways foods can be preserved and have recipes for using extra produce. Check these publications out!

# Family and Community Wellness



Teresa Hatfield, Extension Agent

#### Don't Get Burned: Tips for Keeping Your Skin Healthy This Summer

As the days get longer and we start to spend more time outside, it is important to remember to protect our skin from the summer sun. The sun's ultraviolet light (UV) rays can damage skin cells, which could lead to premature aging and skin cancer. Enjoy your outdoor activities, but do so with skin safety in mind. What we do now will help protect us later.

In the United States, skin cancer statistics are alarming; one in five Americans will develop skin cancer in their lifetime. Skin cancer is the world's most common type of cancer, according to the Skin Cancer Foundation. This type of cancer impacts all people,

no matter their age, skin color, or gender. The estimated annual cost to treat skin cancer of all types is around 8 billion per year.

The American Academy of Dermatology defines skin cancer as the abnormal growth of skin cells, usually caused by UV exposure.

- Basal Cell Carcinoma is the most common type of skin cancer and
  often is found on people with fair skin. It usually develops after years
  of frequent contact or from tanning beds. It can appear anywhere on
  the body, but particularly on the head, face, neck, and arms.
- Squamous Cell Carcinoma is the second most common type of cancer. It can look like a firm red bump, a scaly patch, or a sore that will not heal. This type of cancer occurs in the ear, face, neck, arms, chest, and back.
- Melanoma may develop in a mole or as a dark spot; it tends to spread. It often has irregularly shaped borders and is asymmetrical. The color varies from tan, white, red, blue, black, or brown. Most are larger than the eraser of a pencil. They can also rapidly change size, shape, and color.

Early detection is the key to preventing the spread of skin cancer. Examine your skin monthly and be aware of any changes. Note any new, growing, or changing growths, spots on the skin, or a sore that doesn't heal. If you notice any of these conditions or anything else that doesn't seem normal, schedule a visit with your healthcare provider.

You can take everyday precautions to limit your risk of developing skin cancer. The following list will help you and your family stay safe.

- Everyone should use sunscreen daily. Choose a broad-spectrum, water-resistant 30 SPF sunscreen. Do not use a product with an expired date; it will not be effective in protecting your skin. Use enough product to cover all exposed skin. Apply sunscreen at least 15 minutes before sun exposure and reapply at least every 2 hours.
- Stay out of the sun between 10 a.m. and 4 p.m. when its rays are strongest.
- Wear protective clothing and a wide-brim hat with no holes in the fabric. Wear glasses and sunglasses with UV protection. You can develop melanoma in your eyes.
- Avoid tanning beds. The light from the tanning bed can also cause premature aging and skin cancer.

Remember that anyone can get skin cancer regardless of age, skin color, or gender. Protect your skin by making monthly skin checks and using proper precautions when out in the sun. Let your healthcare provider know if you see anything unusual.

**Resource:** Protect Your Skin from the Sun, K-State Research and Extension, 2025 Annual Lesson Series

# HOW TO CHOOSE SUNSCREEN Broad Spectrum Protection Look for "broad spectrum" sunscreen to shield against both UVA and UVB rays. UVA rays cause premature aging, while UVB rays lead to sunburn and skin damage. Both can contribute to skin cancer.

#### Sun Protection Factor (SPF)

Opt for an SPF of 30 or higher. SPF measures protection against UVB radiation. Broad spectrum sunscreens also offer UVA protection. Higher SPF values provide incremental increases in UV radiation protection.



#### Water Protection

Choose water-resistant or very water-resistant sunscreen for protection while swimming or sweating. Reapply every 40 minutes or 80 minutes when in water.

# 30 SPF

#### Other Consideration

- Apply sunscreen 15 minutes before going outside.
- Use sunscreen in all seasons; UV rays can penetrate clouds, fog, and windows.
- Apply on all exposed skin, including the neck, face, ears, feet, hands, and scalp.
   Use at least 1 ounce (2 tablespoons) for
- Use at least 1 ounce (2 tablespoons) for adults, or the amount that fits in your palm.
   Consider different sunscreen types for



- Consider different sunscreen types for various skin and application needs (e.g., creams, gels, sticks, sprays).
- Avoid sunscreen for infants under 6 months and opt for protective clothin
- Do not combine sunscreen with insect repellents.
- Check sunscreen expiration dates and discard expired products.



#### Sun Exposure Awareness

Protecting your skin from the sun is crucial throughout your life. The cumulative effects of sun exposure contribute to the risk of skin cancer. Make sun protection a habit.







GRILIFE COMMUNITY HEALTH

https://howdyhealth.tamu.edu/choosing-sunscreen/

# Community Vitality/Economic Development



David Key, Extension Agent/Director

# A Checklist for a Successful Neighborhood Cleanup Program!

A neighborhood cleanup program is an ongoing project that assumes that effort will be maintained.

There are three kinds of neighborhood cleanups:

- 1. Public space cleanup: neighborhood volunteers clean the public spaces
- Household cleanup: households clean up property and put out hard-to-dispose-of waste for special collection
- Community-assisted cleanup: the community helps with permits, permissions, removing abandoned vehicles, etc.

# Why should you conduct a neighborhood cleanup program?

- A neighborhood cleanup program can instill neighborhood pride.
- It gives everyone a chance to contribute.
- A cleanup program enhances neighborhood quality of life.
- It makes the neighborhood more attractive to business.
- It can serve as a springboard for other neighborhood actions or activities

# When should you conduct a neighborhood cleanup program?

- When the weather is good.
- When volunteers are available.
- When the municipality can help.
- When the municipality provides the opportunity.
- When waste presents a danger to children or others.
- When waste presents a danger to health.
- When the neighborhood is interested in economic development.
- When you want to bring the neighborhood together.
- When the neighborhood seems to have lost hope.

# How do you conduct a neighborhood cleanup program?

- Recruit or find a core group to begin the effort.
- Put together a planning group that represents all groups in the neighborhood.
- Assess the neighborhood.
- Decide what kind of neighborhood cleanup you want to conduct.
- Consider your resources.
- Pick an appropriate place, date and time.
- Recruit volunteers.
- Organize volunteers.

#### Planning the cleanup itself.

- Coordinate the effort.
- Ask for help from the municipality.
- Get permissions and permits.
- Decide what actually needs to be done.
- Manage volunteers.
- Work with the media to gain positive publicity.
- Take care of the nitty gritty.
- Make the cleanup fun.
- Celebrate when you're done.
- Run the cleanup.
- Monitor and record your efforts.
- Create a structure to keep the effort going.
- Start planning for the next cleanup.

For more information on conducting a community wide cleanup look for the following publication from K-State Research and Extension titled *MF-931 Conducting a Community Cleanup Fix-up Campaign*.



## 4-H Youth Development



Heather Roenne, Extension Agent

#### Heather Roenne, Meadowlark District Extension Agent

Heather Roenne began serving as the Meadowlark District 4-H youth development extension agent, on **April 14**. She will be primary based out of our Oskaloosa office, but will be over Jackson and Jefferson Counties, too.

Roenne earned her bachelor's degree in education from Kansas State University. She has most recently been employed as a 4-H youth development event coordinator in the Meadowlark District - Oskaloosa office.

4-H youth development agents develop and deliver educational programs for school-aged youth. This includes supporting community clubs, out-of-school programs, school enrichment, volunteer management, and outreach to create new program opportunities with new and existing community partners. She is excited to work with the district youth and encourage positive youth development opportunities.

A few of her favorite 4-H activities include county fairs, Discovery Days, local project fairs, and community service events. Roenne has a passion for teaching and helping people become the best versions of themselves. She looks forward to serving the Meadowlark District and communities to make the best better.

You can contact Heather via email at: hroenne@ksu.edu.

#### What is 4-H?

4-H serves youth in rural, urban, and suburban communities in every state across the nation. 4-H'ers are tackling the nation's top issues, from global food security, climate change and sustainable energy to childhood obesity and food safety. 4-H out-of-school programming, in-school enrichment programs, clubs and camps also offer a wide variety of STEM opportunities – from agricultural and animal sciences to rocketry, robotics, environmental protection and computer science – to improve the nation's ability to compete in key scientific fields and take on the leading challenges of the 21st century.

Through our unique partnership with Kansas State University, we are able to provide opportunities for all youth, ages 5-18 (5 & 6 year olds can do an introductory program called 'Cloverbuds'), to explore their interests and find their spark! With programs that are proven to work, we're creating a generation that is beyond ready. No matter your location, budget, schedule, or passion, there is a 4-H program!

The four-leaf clover is the official 4-H emblem. Head, Heart, Hands, and Health are the *four* Hs in 4-H, and they are the *four* values members work on through fun and engaging programs. Our colors are green — signifying life, springtime and youth — and white, signifying fresh and clean.

#### THE 4-H PLEDGE IS:



I PLEDGE

My Head to clearer thinking, My Heart to greater loyalty, My Hands to larger service, My Health to better living,

For my club, my community, my country and my world.

The 4-H motto is "To make the best better." Our members and volunteers learn the pledge and use it in their daily lives. The motto is there to remind us to always strive for improvement, to continually set goals and give every effort your best.

#### Who Helps in 4-H?

At its roots, 4-H is a family program. Parents and family help members with project work and other activities. 4-H members are also helped by volunteer leaders. Each club needs one or more adult leaders. These leaders teach, organize the club, help officers, assist at meetings and orient new parents. There are various kinds of leaders in 4-H:

- Community Club Leaders: Responsible for the general club organization.
- Project Leader: Helps members with their project work.
- Junior Leaders: 4-H teens who work with an adult leader to give leadership to activities, events and/or projects.
- **Parents:** Show interest and concern for their children by attending meetings, serving as leaders, helping in club activities and serving on committees.

All registered volunteers go through a screening process and attend an orientation training. This process ensures protection for both 4-H members and adult volunteers.



**Meadowlark Extension District** 

114 W 5th St. Holton, KS 66436

Address Service Requested

https://www.meadowlark.k-state.edu/

facebook.

https://www.facebook.com/Meadowlarkextensiondistrict

#### **Publications & Resources For Sale**

**Caregiver Helpbook Family Account Book Farm Account Book** 

**Radon Kits** 

**Predator Calls** 

**IMR Calving Books (Red)** 

**Pesticide Manuals** 

Geo Textile Fabric (12 1/2' wide-sold per linear ft.)

Neutroleum Alpha®

**Mosquito Briquets** 

Soil Tests - Crop, Pasture, Lawn & Garden

Water Test Kits (pay SDK Labs, not us)

**Forage Tests** 

**Grazing Sticks** 

911 Signs

**Pesticide Application Field Record Book (free)** 

Cow/Calf Record Book (free)

**Body Condition Record Book (free)** 

**K-State Publications (free)** 

#### Items to Check Out

**Soil & Hay Probes Pesticide Manuals** 

**Mole Trap** 

**Freeze Branding Irons** 

Buzzers

Walk With Ease

#### **Upcoming Events**

Mar. 30-May 24: Walk Kansas

May 28-May 30: Kids a Cookin', Oskaloosa

June 10: Emerald Ash Borer Informational Workshop, Seneca

June 11: COMET Regional Trainer Workshop, Oskaloosa



#### Some of the Programs That We Offer

- A Matter of Balance
- Dining With Diabetes
- Gray for a Day
- Master of Memory
- Stay Strong, Stay Healthy
- School Enrichment
  - Butterflies
  - Chick Embryology
  - Glo-Germ Hand Washing
  - Wheat Science

K-State Research and Extension is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision or hearing disability, or a dietary restriction please contact the Holton office at 785-364-4125, the Oskaloosa office at 785-863-2212, or the Seneca office at 785-336-2184.