**JULY 2023**

**LANE COUNTY FAIR**
Wednesday, July 19 thru Saturday, July 22
[Here's the Schedule](https://www.facebook.com/lanecountyfairks)

**NESS COUNTY FAIR**
Tuesday, July 25 thru Saturday, July 29
[Here's the Schedule](https://www.facebook.com/nesscountyfair)

**RUSH COUNTY FAIR**
Wednesday, August 2 thru Saturday August 5
[Here's the Schedule](https://www.facebook.com/rushcountyfair)

**Volunteers Needed:**
The County Fair takes a whole community to make it a success. Check with your local Extension Office to see how you can volunteer during County Fair.

Also, the local Amusement Company - Carnivals could use your help. Contact:
- Lane County – Chandra Bush – 620-397-3505
- Ness County – Val Dietterich 620-575-6268
- Rush County -- Dee Bartonek – 620-923-6167

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**LANE COUNTY OFFICE**
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620-397-2806

- Chelsey Shapland, 4-H Program Assistant - cshapland@ksu.edu
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**NESS COUNTY OFFICE**
503 S PENNSYLVANIA AVE
NESS CITY, KS 67560
785-798-3921

- Lacey Noterman, Director and Agriculture Ext. Agent - lnote@ksu.edu
- Robyn Trussel, 4-H and Youth Agent - rdeines@ksu.edu
- Randae Rufenacht, Office Professional - rrufenac@ksu.edu

**RUSH COUNTY OFFICE**
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THE VALUE of investing in Youth

BECOME A PART OF A TRADITION

▲ Attend the Food or Livestock Auction

▲ Pledge an amount to the Pool to be bid

▲ Add-on Premium can be assigned on a group of youth

▲ Sponsor a project Award

Lane County Bake Sale - Wednesday, July 19th at 7pm
Lane County Livestock Auction - Saturday, July 22 at 4:30pm

Ness County Food Auction - Wednesday, July 26th at 6pm
Ness County Livestock Auction - Saturday, July 29th at 3pm

Rush County Food Auction - Wednesday, August 2nd at 5:30pm
Rush County Livestock Auction - Saturday, August 5th at 5pm

If you want to be part of the Tradition of supporting 4-H Youth reach out to 4-H Agent, Robyn Trussel - 785-798-5020
Kansas 4-H Ag Youth Experience

The food we eat, the clothes we wear, and the fuel that powers our lives is produced with agriculture. The future of agriculture is reliant on the next generation of innovators, communicators, producers, educators and leaders.

Educators and Community leaders play a critical role in helping young people learn about and connect with the agriculture around them. As several K-State Research and Extension Agents from Northwest Kansas began the brainstorming process to show our 4-H youth a 360 degree look into agriculture opportunities across the state of Kansas, from North to South and from West to east a fantastic trip for five Walnut Creek Extension youth and three Twin Creeks District (Sheridan, Decatur, Norton and Graham Counties) youth came to light.

One cotton bale will make...
215 Pair of Jeans
1217 Men's T-shirts
2104 Boxer Shorts
3085 Diapers
4321 Mid calf socks
21,960 handkerchiefs
The three-day trip was packed full of agriculture knowledge, experiences and diversity. The trip has been a 2-3 year goal in the making and we are so excited that it finally made it happen. The youth all met in Dighton, last Monday morning to start this experience. On Monday the group was hosted and guided through tours at Reeves Cattle Company in Garden City; where the focus was the feedlot beef industry and on-site ethanol production as a byproduct from the grain that is distilled and fed to the cattle for a high protein, high fat food substance.

The afternoon was filled with a stop in Kinsley, at the Tyree Ag facility where youth learned about both ground and aerial spraying, the certifications, trainings and legalities that went into the business. Also, Next GIneration Cotton gin in Cullison where youth were introduced to the gin process as well as the extra agriculture opportunities that come from the by-products of cotton, such as cotton hulls being used for landscaping and the seeds being used to feed Dairy Cattle a high fat diet.

On Tuesday morning the youth toured Pratt Community College and learned about the ag programs that PCC offered. This tour was followed by an in-depth tour of the Hudson Flour Milling process. Our final tour of the day was Cargill Innovation Center in Wichita where the youth were introduced to several opportunities of Food Science and how harvesting and testing of foods is an important part of From Farm to Table.

Wednesday's agriculture experiences were brought to us by Juniper Hill Farms in Lawrence, an amazing produce farm that was owned by a first generation farm entrepreneur and the KSU Purebred Beef Unit. The goal of the trip was to expose youth to the diversity of Kansas agriculture, as well as career and educational options in the agricultural industry. It was a great feeling to see this mission accomplished.

Plans will be to do a re-mixed version of the tour next year, in hopes that we can continue to introduce our 4-H youth to the many different facets of agriculture in hopes to incubate the love and careers of ag for our 4-H teens. For more information how your youth can participate in the future or to help sponsor events such as this feel free to contact the Walnut Creek Extension District in Lane, Ness and Rush counties.
The Walnut Creek Extension District is currently conducting a Market Wheat Show. All exhibits in the Market Wheat Show shall consist of 5 pounds of wheat grown by the exhibitor in the current year.

It is super easy to enter! Samples can be collected at all grain elevators in Lane, Ness, and Rush counties or stop by the Extension office to pick up a bag and crop data card. It is your decision to enter the show but keep in mind, IT’S FREE!

Samples must include 5 pounds of wheat. All producers that are entered will be given a Crop Data Card. Simply fill out the agronomic information section of the card and drop it in the bag of wheat. Then just leave the bag of wheat at the local elevator or the Extension Office by July 12th.

All wheat entries will be judged by the Kansas Grain Inspection Service of Dodge City. The entries and results will be displayed at your local County Fair.

A listing of Market Wheat Show criteria is as follows:
1. A completed Crop Data Card and wheat sample should be turned into the Extension Office or local elevator no later than July 12th.
2. All wheat exhibits must be produced in Lane, Ness or Rush County during the present year.
3. All exhibits shall be COMBINE RUNS ONLY; samples shall consist of approximately 5 lbs. of wheat. DO NOT CLEAN THE WHEAT SAMPLE.
4. Limitation of entries: Each farmer is limited to one (1) entry for each variety of wheat grown on the exhibitor’s farm.
6. All samples will be graded by the Kansas Grain Inspection Service in Dodge City.

Samples will be judged by the following criteria:
- Protein: 250 points
- Test Weight: 200 points
- Dockage: 200 points
- Shrunken/Broken Kernels: 100 points
- Crop Data Card: 25 points
- Variety (milling & baking): 250 points

Total possible: 1000 points.

The 2023 Market Wheat Show would not be possible without our sponsors. We would like to recognize and thank the Midland Marketing Coop, Bartlett Grain Company, Mid-State Farmers Coop, Cooperative Grain & Supply - Bazine, DE Boudurant Grain Company, and Garden City Coop - Dighton.

For more information, please feel free to contact Lacey Noterman, K-State Research and Extension, Walnut Creek District Agriculture and Natural Resources Extension Agent at lnote@ksu.edu or 785-798-3921.
Tomato Plants Look Healthy BUT No Fruit

With the high daytime temperatures lately, you may notice your otherwise healthy tomato plants failing to produce fruit. When daytime temperatures reach above 85 degrees F it interferes with pollination and can cause the plans to abort their flowers. The optimal temperature for tomatoes to fruit is between 70- and 85-degrees F. Once the weather returns to more moderate temperatures The plants will resume fruit production. During the period of slowed fruiting, ensure plants are receiving proper care to reduce the amount of stress. There are some varieties of tomatoes that are less sensitive to the heat including cherry tomatoes and some larger, slicing tomatoes, but the heat tolerance is only a few degrees different.

Physiological Leaf Curl in Tomatoes

Tomato leaves will sometimes curl as a result of imbalanced growth above and below the soil. Gardeners may see vigorous top growth during mild spring weather. Below the soil the roots may not be keeping up. When the weather turns hotter during the summer the roots are not established enough to support the size of the upper growth. Curling leaves, in this instance, is a physiological condition that enables the plant to reduce its surface area and conserve water. Leaves may also become tougher and leathery.

Physiological leaf curl is most often seen as the seasons change from spring to summer but can also be caused by heavy cultivation that has damaged the roots, improper fertilization and poor watering practices. Though the plants typically self-correct with time and as conditions improve, prolonged periods of time with improper care can affect yield. To avoid leaf curl, it is important to properly harden off tomato seedlings. Use a layer of mulch around tomato plants to regulate soil moisture and temperature. Apply fertilizer as needed based on soil testing. You may also choose determinate (bush-type) varieties of tomatoes which are less susceptible to leaf curl than the indeterminate (vining) varieties. (Cynthia Domenghini)

2023 K-State/KARA Summer Field School

Kansas State University and the Kansas Agribusiness Retailers Association (KARA) will be hosting two, 2-day field schools on July 11-12 and July 13-14 at the K-State Agronomy North Farm (2200 Kimball Ave) located just north of the football stadium. This year's program will focus on soybean production and fertility. In addition, there will be comprehensive hands-on training in herbicide symptomology and deposition, weed identification, summer annual forages, soil and water management, crop diseases, and insects.

The complete program and registration link can be found at https://www.ksagretailers.org/events-training/ksu-field-days/. The program costs $210 for the 2-day program or $125 for 1 day. The registration fee includes lunch (both days are included for the 2-day program rate) and the opportunity to earn multiple CCA and 1A credits.
Fly season is upon us…and came on with a vengeance. There are three fly species that are economically impactful to grazing cattle: the horn fly, face fly and stable fly. However, there are many fly control options and strategies available to livestock producers to help combat them. Dave Boxler, UNL Extension Educator gives this account for the affects of each.

**Horn Flies**

Horn flies are small in size, approximately 3/16” in length and are usually found on the backs, sides and poll area of cattle. During a warm summer afternoon they can be found on the belly region of cattle. Horn flies, both male and females flies, acquire more than 30 blood meals per day.

After mating the female fly will leave the animal to deposit eggs in fresh cattle manure. Eggs hatch within one week, and larvae feed and mature in the manure, pupating in the soil beneath the manure pat. Newly emerged horn flies can travel several miles searching for a host. The entire life cycle can be completed in 10 to 20 days depending upon the weather.

**Economic losses**

Economic losses associated with horn flies are estimated at more than $1 billion dollars annually in the United States. Horn fly feeding causes irritation, blood loss, decreased grazing efficacy, reduced weight gains, and diminished milk production in mother cows. Additionally, horn flies have been implicated in the spread of summer mastitis.

Studies conducted in the U.S. and Canada have shown that horn flies can cause weight gain loss in cattle, and calf weaning weights can be negatively impacted from 4 – 15 percent. Studies conducted have established calf weaning weights were 10-20 pounds higher when horn flies were controlled on mother cows. The economic injury level (EIL) for horn flies is 200 flies per animal.

**Control methods:**

Backrubbers and dust bags are an effective way to reduce horn fly numbers if cattle are forced to use them. **Insecticide ear tags and strips** are a convenient method of horn fly control. However, many horn fly populations in Nebraska exhibit a degree resistance to the pyrethroid class of insecticides. The recommended management practice to maintain horn fly control is to rotate insecticide classes. **Animal sprays and pour-on products** will provide 7-21 days of control and will need to be re-applied throughout the fly season. **Oral larvicides** prevent fly larvae from developing into adults. An important factor when using an oral larvicide is insuring steady consumption. An additional complicating issue using an oral larvicide is horn fly migration from neighboring untreated herds which can mask the effectiveness of an oral larvicide. The **Vet Gun™** applies an individual capsule of insecticide to an animal and can provide control between 21 and 35 days.
Face Flies

Face fly adults closely resemble house flies except they are slightly larger and darker than the house fly. The face fly is a non-biting fly that feeds on animal secretions, nectar and dung liquids. The adult female face flies clustering around an animal’s eyes, mouth and muzzle, can cause extreme annoyance. Face flies will also feed on blood and other secretions around wounds caused by mechanical damage or other injury. Face flies are present throughout the summer but populations usually peak in late July and August. Face flies are most numerous along waterways, areas with abundant rainfall, canyon floors with trees and shaded vegetation, and on irrigated pastures.

Pinkeye

Female face fly feeding causes damage to eye tissues, increases susceptibility to eye pathogens, and vector Moraxella bovis, the causal agent of pinkeye or infectious bovine keratoconjunctivitis. Pinkeye is a highly contagious inflammation of the cornea and conjunctiva of cattle. If coupled with the infectious bovine rhinotrachetis (IBR) virus, M. bovis can cause a much more severe inflammatory condition. Controlling face flies is essential in reducing most pinkeye problems.

Control methods

Achieving adequate face fly control can be difficult because of their habit of feeding around the face and the significant time they spend off the animal. Control is maximized when the cattle receive daily insecticide applications by either dust bags, oilers, sprays, or an insecticide impregnated ear tag/strip. Ear tags/strips should be applied at the label recommended rate. Both cows and calves must be treated if control is to be achieved.

Pinkeye vaccines are available and should be considered if face flies and pinkeye have been a recurring problem. Currently, commercial and autogenous pinkeye vaccines are available; please check with your local veterinarian about the use of these products in your area.

Stable Flies

Stable flies are serious pests of feedlots and dairies and of pasture cattle. The stable fly is a blood feeder, mainly feeding on the front legs of cattle, staying on the animal long enough to complete a blood meal. Their bites are very painful; cattle will often react by stomping their legs, bunching at pasture corners, or stand in water to avoid being bitten.

The female stable fly deposits eggs in spoiled or fermenting organic matter mixed with animal manure, soil and moisture. The most common developing sites are in feedlots or dairy lots, usually around feed bunks, along the edges of feeding aprons, under fences, and along stacks of hay, alfalfa and straw. Grass clippings and poorly managed compost piles also may be stable fly developing sites. Winter hay feeding sites where hay rings are used can often be a source for larval development through the summer if the proper moisture is present. The life cycle of the stable fly can take 14-24 days, depending on weather conditions. While the source of early season stable flies on pastured cattle it not well understood some probably develop from larvae overwintering locally. Other early season flies may be migrants from southern locations, but evidence is lacking. Nevertheless, we do know that stable flies can move at least 10 miles or more. Pasture rotations can help, but with seldom can we get far enough to be fail safe.

Economic losses

Stable flies cause similar weight loss to both pasture and confinement cattle. Research recorded a reduction in average daily gain of 0.44 lbs. per head in animals which received a treatment vs. those without an insecticide. The economic threshold of 5 flies per leg is easily exceeded cattle on pasture.

Control methods

The only adult management option available for the control of stable flies on range cattle is use of animal sprays. Sprays can be applied using a low pressure sprayer or can be applied with a mist blower sprayer. Weekly applications of these products will be required to achieve reduction in fly numbers.

Sanitation or clean-up of wasted feed at winter feeding sites may reduce localized fly development. If sanitation is not possible these sites may be treated with a larvicide (Neporex®). But, the application of either procedure may not totally reduce the economic impact of stable fly feeding.

For those dealing with flies around the farmstead, cleaning is paramount. Get the ground clean and dry. Traps can work, but usually the area they pull from is minute compared to the size of the lots. Traps can be everything from sticky strips to liquid filled bags. Bug zappers have been around a long time, but they have made improvements with horizontal bulbs. Premises sprays can work well too and if all else fails…call in the chickens.