

# K-STATE

Research and Extension

## Sunflower Extension District #6

### October 2022

Go to [www.sunflower.ksu.edu](http://www.sunflower.ksu.edu) for more details on these programs.

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October 2022

Online! Newsletter

[www.sunflower.ksu.edu](http://www.sunflower.ksu.edu)

#### Sunflower Extension District

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[www.ksre.ksu.edu](http://www.ksre.ksu.edu)



## FIND YOUR SPARK IN 4-H!

ENROLLMENT OPENS: OCTOBER 1, 2022

JOIN 4-H: <https://v2.4honline.com/#/user/sign-in>

Stay Strong,  
Stay Healthy



### NEW CLASS

Starting on October 3, 2022

Sessions will be 2 days a week for 8 weeks.

At the First Christian Church in Goodland.

Sessions will be from 10:30-11:30 a.m.



## Plan this Fall to Spray Canada Thistle and Musk Thistle

Thistles seem to be fairly noticeable this year because of the poor growth of grass and crops. Even with the dry conditions, the thistles were finding moisture for growth. So, spraying them should still be on your list of fall projects.

First, I think it is important to identify the type of thistles. The most common in our area are Canada thistle and musk thistle. Both are noxious weeds with deeply lobed leaves with spines. However, their life cycle is a bit different. The Canada thistle is a perennial and the musk thistle is a biennial or winter annual species.

Since it is a perennial, Canada thistle can develop from both seed or vegetative buds in its root system. It has extensive root systems. Horizontal roots may extend 15 ft or more and vertical roots may grow 6 to 15 ft deep. Canada thistle emerges from its root system in mid- to late-spring (late April through May) and forms rosettes. It can also emerge in the fall when we have enough moisture to support growth.

Musk thistle is primarily a biennial or winter annual species. Biennials take two growing seasons to complete their life cycle. Here thistles germinate in the spring, spend the entire summer as a rosette, live through the winter, and bolt the next year in May and June. Winter annual plants will germinate with moisture and warm temperatures in the fall, live through the winter, and bolt the following year.

Both of these species are easier to control when they are in the rosette stage of growth in the fall (Figure 1). Once either of these species bolt (grow into the taller plant in the late spring) the efficacy of herbicides decreases.



Figure 1. Thistle in the rosette growth stage. Photo by Jeanne Falk Jones, K-State Agronomist.

For both thistle species, fall herbicide applications work well because it maximizes the herbicide movement into the root system. *An ideal time for the application is right after a light frost.* This signals the plant that it is time to build up carbohydrate reserves in the roots to survive the winter. When herbicide is applied at that time, it moves into the roots to help with control of the plant. This is very similar to an after-light frost herbicide applications for bindweed.

It is important to understand with Canada thistle, that controlling it is going to be an ongoing effort. A single herbicide application will not provide adequate long-term control. The key principle to Canada thistle control is to stress the plant and force it to use stored root nutrients over a prolonged period.

While chemical control is a key to controlling these thistle species, it is important to pair it with other control methods. Those include cultural control (thick stands of alfalfa or grasses for competition) and mechanical control (mowing).

There are several options for herbicide applications for Canada thistle. Here are herbicides listed in the K-State Chemical Weed Control book (SRP 1139):

Active Ingredient	Herbicide Name	Rate of product
Aminopyralid	Milestone	5 to 7 fl oz
Aminopyralid + Metsulfuron	Chaparral	2 to 3.3 oz
Aminopyralid + 2,4-D	ForeFront HL or GrazonNext HL	1.5 to 2.1 pt
Clopyralid	Stinger	0.33 to 0.67 pt
Clopyralid + Triclopyr	Redeem R&P	1.5 to 4 pt
Clopyralid + 2,4-D	Curtail	2 to 4 pt
Dicamba	Dicamba	1 to 2 qt
Glyphosate	Glyphosate	1 to 3 qt or 3 lb ae/gal
Picloram	Tordon 22K	1 to 2 qt

For musk thistle, here are the herbicides listed:

Active Ingredient	Herbicide Name	Rate of product
Aminopyralid	Milestone	3 to 5 fl oz
Aminopyralid + Metsulfuron	Chaparral	1 to 2.5 oz
Aminopyralid + 2,4-D	ForeFront HL or GrazonNext HL	1.2 to 1.5 pt
Chlorosulfuron	Telar DF	0.5 to 1 oz
Clopyralid + Triclopyr	Redeem R&P	1 to 2 pt
Clopyralid + 2,4-D	Curtail	2 to 4 pt
Dicamba	Dicamba	0.67 qt
Dicamba + 2,4-D	Dicamba + 2,4-D	0.5 pt + 0.75 qt
Diflufenzopyr + Dicamba	Overdrive	4 oz
Metsulfuron	Escort XP or Metsulfuron	0.25 to 0.5 oz
Metsulfuron + Chlorsulfuron	Cimarron Plus	0.25 to 0.5 oz
Metsulfuron + Chlorsulfuron	Cimarron X-tra	0.5 to 1 oz
Metsulfuron + Dicamba + 2,4-D	Cimarron Max	Rate I (2 part product. check label)
Picloram	Tordon 22K	0.5 pt
Picloram + 2,4-D	Tordon 22K +2,4-D	1 to 2 qt
Triasulfuron + Dicamba	Rave	4 oz
2,4-D	2,4-D amine/LVE	1.5 to 2 qt of 4 lb/gal



## Beef Cow Rations Rules of Thumb

With high feed costs and limited resources, beef cattle producers should pay close attention to meeting cow nutritional needs without going overboard. There are five key nutrients that cattle require: water, energy, protein, minerals, and vitamins. Some are prioritized more than others, but all should be considered for a well balanced feed ration. Beef cow ration rules of thumb are a good place to get started with meeting these needs. In general they can be trusted, but producers must understand that differences in cattle type, environment, and management can affect the end result. Cattle should be assessed regularly to better understand if the ration and management is resulting in the desired performance.

### Crude Protein

Crude protein is a building block and component of muscles, connective tissue and the nervous system. It is required for maintenance, growth, reproduction and lactation. These stages of growth and production result in differing needs for cattle dependent of age, pregnancy status, and other phases of production. The rule of thumb for protein when it comes to mature cows is the 7-9-11 rule. Cows in mid-gestation and not lactating require 7% crude protein, those in late gestation require 9% crude protein, and after calving they require 11% crude protein on a dry matter basis in their diet. While on the topic of protein, weaned/feeder calves follow a 14-12-10 rule where protein needs decrease as their growth slows. Calves 550-800 lbs require 14%, calves 800-1050 require 12%, and calves 1050 lbs to finish require 10% crude protein on a dry matter basis in their diet. A tip for determining if there may be a deficiency of protein is to look at the manure. If protein content is too low based on animal size, management, and stage of production there will be high levels of undigested fiber in the manure (Yurchak & Okine, 2004).

### Energy

Much like protein, energy in the diet is necessary for growth and other body functions. There are six measures of energy including total digestible nutrients (TDN), digestible energy (DE), metabolizable energy (ME), and net energy for lactation (N<sub>l</sub>), maintenance (N<sub>Em</sub>), and gain (N<sub>Eg</sub>). Considering TDN (total digestible nutrients), mature cows should follow the 55-60-65 rule of thumb. Considering a maintenance of body condition during winter, non-lactating mature cows in mid-gestation should receive 55 TDN, those in late gestation 60 TDN, and after calving cows should receive 65 TDN in their diet on a dry matter

basis (Yurchak & Okine, 2004). To determine the energy content in the diet, monitor body condition score of cows. Cows will lose body condition if energy is lacking in their diet. If a producer feels more comfortable with a measure of energy other than TDN, they should develop their own rules for energy.

### Minerals

Minerals are necessary for several functions such as skeletal development, nervous system function, carbohydrate metabolism, energy, growth, immunity, reproduction and lactation. When deficiencies occur, these functions cannot be carried out properly. Ensuring these needs are met is important on any beef cattle operation. If feed rations are tested to include mineral levels, one can determine if the needs are being met for proper body function. If not, a commercial mineral product can address these needs.

### Intake

Once feed quality is determined based on animal requirements, the amount fed is the next step. The rule of thumb for feed intake is that all beef cattle will consume approximately 2.5% of their body weight on a dry matter basis. However, feed quality plays a role in intake and tends to increase as quality increases, please refer to Table 1. Another important thing to remember when considering dry matter intake is that water content and waste need to be factored in to the amount fed (Yurchak & Okine, 2004). If a 1400 lb cow is to consume 2.5% of body weight of dry matter of an average quality hay and 5% is wasted she should be delivered approximately 41 lbs. That mature cow should consume 35 lbs of dry matter per day. That turns to 39 lbs as fed assuming the hay is 90% dry matter, then another 2 lbs are added to account for a 5% waste.

Rules of thumb will never replace sophisticated ration balancing programs. To better understand how a ration is meeting the nutritional needs of a specific class of cattle, be sure to utilize feed analysis and a ration formulation program. If unsure where to start, contact your local extension office. There you will have access to feed sampling equipment and receive help with feed ration programs.

**For more information or resources for beef cattle rations, please visit or call the Cheyenne County Extension Office at (785)332-3171.**



**For more resources and event announcements, please follow us on Facebook at *K-State Research and Extension Sunflower District*.**

Table 1. Guidelines for forage intake as percent of body weight on a dry matter basis. Adapted from Beef Ration Rules of Thumb. 2004. T. Yurchak & E. Okine. Agdex 420/52-4

	Straw and poor forage	Medium quality forage	Excellent quality forage
Growing and finishing cattle	1.0 %	1.8 to 2.0 %	2.5 to 3.0 %
Dry mature cows and bulls	1.4 to 1.6 %	1.8 to 2.0 %	2.3 to 2.6 %
Suckled cows	1.6 to 1.8 %	2.0 to 2.4 %	2.5 to 3.0 %





Where food safety is concerned, a food thermometer is kind of like the swiss army knife. It's a must-have, multi-use tool in the kitchen.

It is one of the most important tools consumers can use to know when food is cooked properly for safe consumption. "It's useful for meat items, casseroles and even baked goods. Using a subjective method – such as ground meat color – can be misleading and lead to foodborne illness.

Also, it can help with (assuring) the quality of a food item and reduce over-cooking.

For consumers who need to buy a food thermometer, the digital type is recommended

Digital food thermometers read the temperature at the tip of the temperature probe. They also read temperature quickly, and come in a simple handheld design or with other features, such as the ability to insert the probe into the food and leave it in during cooking. You can set the thermometer to indicate when the final temperature has been reached."

Some digital thermometers can even connect to a mobile device. More information for the types of food thermometers available is [available online from the U.S. Food Safety and Inspection Service](#).

Consumers who already own a food thermometer can calibrate them routinely to make sure they are still giving accurate readings.

The best method is to calibrate your thermometer using ice water and boiling water to check cold and hot readings. Dial faced thermometers can be adjusted if needed. Digital thermometers should be replaced unless it came with instructions on how to adjust.

When it comes to food safety, the No. 1 thing to start with in any kind of cooking situation is washing your hands. It's the first line of defense against foodborne bacteria.

Handwashing is as simple as wetting the hands, rubbing them together with soap for 20 seconds and rinsing them thoroughly.

Other steps to promote food safety include:

Clean counters and other prep areas as you go. Clean up drips, especially from raw meat. Rinse the outside of fresh fruits and vegetables with clean, running water, rubbing the food gently with your hands. As one example, a watermelon may have dirt on the outside that could be transferred by a knife to the flesh when cutting it open. Bacteria washes, produce washes and bleach are not recommended for rinsing fruit and vegetables. Meat should not be rinsed before cooking. Rinsing can lead to splattering water with meat juice to your ready-to-eat food counters and cabinets. Also wash hands anytime you are moving from one food to another, which helps avoid cross-contamination.

**Separate.** Keep raw meat on one plate, and cooked meat on a separate plate. Also keep raw meat away from ready-to-eat foods, such as salad and fruit.

**Cook.** Use your thermometer. Steaks, roasts, chops and fish should be cooked to an internal temperature of 145 degrees F; ground meats (including beef, pork and lamb) should be cooked at 160° F; and all poultry products should be cooked at 165° F.

**Chill.** As outdoor temperatures get warmer, it becomes even more important to keep food chilled. A good rule of thumb is to get food back in the refrigerator or ice chest within two hours or less.

**Grill.** Give the grill a good cleaning before the first cookout of the season. Scrape the grate with a stiff brush, or using approved cleaners.



Bring a Friend

JOIN THE CLUB



Join 4-H for the 2022–2023 year beginning October 1, 2022! Re-enroll to run for a club office by the election date and by December 1 to show at your local fair. https://www.kansas4-h.org/resources/4-h-online/index.html (information about enrollment) https://v2.4honline.com/#/user/sign-in (sign-in or create account)

The youngest 4-H members aren't quite ready to participate in many of the project areas and/or activities that their older siblings can but there's still plenty to do in 4-H, starting with fun! The Cloverbuds experience emphasizes participation, learning, and teamwork, not competition. Anyone ages 5-6 can be a 4-H Cloverbud and start building their skills for their future "career" as a 4-H member.

Curious about how to build a birdhouse? Have you found an interesting rock and wonder what it is? Do you like animals, bugs, or nature? Budding gardener? Aspire to be a fashionista? Want to make your favorite food, explore a career, or use a camera to view the world?

Life's questions aren't meant to be answered alone. In 4-H, kids learn practical things like pet care, growing gardens or building things - and important values like responsibility, leadership, and teamwork. Explore things that spark an interest! Discover new talents and skills! Make new friends! And best of all, have fun!

4-H and Cloverbuds is open to anyone ages 5-18. (Age on December 31 of the current 4-H year.)

4-H Ages: Cloverbuds 5-6; Juniors 7-8; Intermediate 9-13; Seniors 14-18

To learn more about Sunflower District 4-H visit: https://www.sunflower.k-state.edu/4-h/



Inspire Kids to Do
Inspire Kids to Learn
Inspire Kids to Grow



True leaders aren't born: they're grown. With 4-H volunteers in the Sunflower Extension District, youth become confident and strong, curious enough to question, and capable enough to find the answers. They become young people who work until the job gets done, know how to work with others, and lead. Volunteer with Cheyenne, Sherman, and Wallace County (Sunflower District) 4-H and help grow true leaders in your community by empowering young people with skills to lead for a lifetime. Call us about YOUR spark and passion and we'll work together to find a way for you to share it with 4-H members.



Contact:
Karen Nelson, 4-H Youth Development Agent
Sunflower District—785.890.4880
karenelson@ksu.edu





Congratulations to all 4-H State exhibitors!

Cheyenne County was represented with 12 Static Exhibits and Livestock Exhibits at both KSF and KJLS.



4-H is for YOU!  
4-H is for FUN!

4-HOnline will be open to enroll/re-enroll on October 1st.

<https://v2.4honline.com/#/user/sign-in>

**Upcoming Dates-**

- October 2-4 National 4-H Week
- 8 48 Hours of 4-H
- 19 KPRF Due to Office
- November 20 Achievement Banquet

**Achievement Banquet Club Responsibilities-**

- Pleasant Hill- Set Up
- Go-Getters- Decorate
- Lawn Ridge- Club In Charge
- Plum Creek- Food Table
- ALL CLUBS- Clean Up

**Kansas Project Report Form** is the name for Record Keeping and Project Reporting. There are two ways to complete your Project Records-  
 OPTION A: ZBOOKS Online Record Keeping  
 OPTION B: Form Fillable PDF's  
 An email was broadcasted earlier with the links needed to access either and the online page with all the information needed.  
<https://www.kansas4-h.org/resources/awards-and-recognition/ProjectRecognition.html>  
 Remember there are two forms available to use - general or livestock.  
 Contact the Extension Office with any questions 785-332-3171



# Cheyenne County

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 4-H Online Open to Enroll
2 	3	4	5	6	7	8 
9	10 Courthouse Closed	11	12	13	14	15
16	17	18	19 KPRF Due to Extension Office	20	21	22
23	24	25	26	27	28	29
30	31 					





## IMPORTANT DATES

- Sept. 30 - Oct 2 ....KJLS - KS JR Livestock Show
- October 1 .....4-H Online Enrollment Opens
- October 2 - 8.....National 4-H Week
- October 8-9.....State Shooting Sports
- October 9... .....Ruleton Eager Beavers
- October 9. ....Prairie Dale
- October 10.....**Columbus Day/Extension Closed**
- October 14.....Kansas 4-H Project Recognition Form  
Books due to the Extension Office
- October 15.....Horse Barrel Races/Tentative?
- October 16.....Sunflower 4-H
- October 16.....JR Leader
- October 17.....Country Clovers
- October 31.....Trunk or Treat
- October 31.....Halloween

### OPEN ENROLLMENT!



### October 1, 2022

<https://v2.4honline.com/#/user/sign-in>

#### CHOOSE YOUR CLUB!

#### Country Clovers

Leaders: Penny Nemechek & Mandi Martin

#### Prairie Dale

Leaders: Amanda Schilling, & Kelsey Stephens

#### Ruleton Eager Beavers

Leaders: Travis & Colleen Gattshall

#### Sunflower

Leaders: Peggy Berls & Julie Quain

JOIN US FOR THE ANNUAL



October 31, 2022  
More information to come!

“GOOD LUCK” to the “2022” Sunflower Extension District #6 “SHOOTING SPORTS TEAM” at Wichita, KS on October 8th & 9th



<https://www.facebook.com/>

# Sherman County

## NATIONAL 4-H WEEK

**MORE OPPORTUNITY,  
MORE SMILES.**



Find your **spark** in **Kansas 4-H!**

#OPPORTUNITY4ALL  
AT KANSAS 4-H.ORG!

**K-STATE**  
Research and Extension



INVITE a FRIEND to JOIN 4H

OCTOBER 2ND - 8TH



# Sherman



# October



# 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					September 30.  <b>KJLS</b> KS JR Livestock	1.
2.	3.	4.	5.	6.	7.	8.
<b>National 4-H Week October 2nd - 8th, 2022</b>						
9.  <b>Ruleton Eager Beavers</b> 3:00 PM <b>Prairie Dale</b> 5:00 PM 4-H Building	10.  <b>Columbus Day</b> Extension Closed	11.	12.	13.	14.  <b>KPRF Books</b> are due to the Extension Office by 5:00 PM. (Record Books)	15.
16.  <b>Sunflower</b> 3:00 PM <b>JR Leaders</b> 4:00 PM 4-H Building	17.  <b>Country Clovers</b> 7:00 PM 4-H Building	18.	19.	20.	21.	22.
23.	24.	25.	26.	27.	28.	29.
October 30.	October 31.  					



**Dates to Remember**

October

- 1- 4-H Enrollment opens
- 4- **Record Books Due to office**
- 6- Record Books Judged
- 8-9- 48 Hours of 4-H

November

- 6- Achievement Banquet
- 6- 4-H Council Meeting
- 19-20- KS Youth Leadership Forum
- 24- Thanksgiving-Office Closed
- 25- Office Closed
- 25-29- National 4-H Congress

**Record Books**

Due to the Extension Office by October 4th. They will be taken to be judged on October 6th.



**National 4-H Week  
October 2-8, 2022**

**Leadership Weekend**

**What:** KYLF will feature leadership workshops, Youth Council Elections, and opportunities to learn and have fun. The Kansas 4-H Volunteer Leader Forum will feature workshops and information to help volunteers be more effective and learn from each other.

**When:** November 19-20, 2022

**Where:** Rock Springs 4-H Ranch

**Who:** Youth 14-18 years of age before January 1, 2023 and all Kansas 4-H Volunteers.

Call our office if you would like more information. Registration deadline is October 15, 2022

**2022 State Fair Results  
for Wallace County**

Foods

- Jaelyn Daily—Purple
- Kasen Stramel—Red
- Lincoln Stramel—Red
- Claire Helsel—White

Visual Arts

- Payton Riedel—Blue
- Madelynn Wright—Blue
- Jaelyn Daily—Red

Photography

- Jaelyn Daily—Purple
- Blaise Fischer—Purple
- Desirae McQuillan—Blue
- Myriah McQuillan—Blue, Blue
- Kasen Stramel—Blue

Dog

- Payton Riedel —Blue

**Achievement Banquet**

The Achievement Banquet will be held on November 6th. Parents are asked to bring slideshow pictures into the Extension Office as soon as possible. Don't bring any more than 10 pictures for each 4-H'er. If you have any questions please call 785-852-4285.

**4-H Enrollment**

October 1 is the 1st day for online enrollments for the 2022-23 4-H year. An annual K-State Research and Extension 4-H program fee of \$15 per member will be collected. With that being said, the Wallace County 4-H Council will pay the enrollment for each 4-Her again just like last year. **Also, you need to be enrolled by December 1st to be able to show in your county fair. If not enrolled by that date you will show in the open division.** If you choose to enroll after December 1st the enrollment payment is your responsibility. If you have any questions concerning this fee please call the Extension Office at 785-852-4285



# OCTOBER 2022

## Wallace County

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 4-H Enrollment opens
2	3	4 Record Book due to the office	5	6 Record Book Judging	7	8  48 Hours of 4-H
-----National 4-H Week-----						
9 4-H Sunday	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31 Halloween 					





**Sunflower Extension District #6**  
Goodland Office  
813 Broadway, Room 301  
Goodland, KS 67735

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Manhattan, KS 66502

### Sunflower Extension District #6 Offices

[www.sunflower.ksu.edu](http://www.sunflower.ksu.edu)



#### Goodland Office

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4-H Youth Development Agent/Director  
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**Sherri Keith**

Office Professional  
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#### Sharon Springs Office

**Melinda Daily**

Family & Consumer Science Agent  
[mdaily@ksu.edu](mailto:mdaily@ksu.edu)

**Wendy Benisch**

Office Professional  
[wbenisch@ksu.edu](mailto:wbenisch@ksu.edu)

#### St. Francis Office

**Heather McDonald**

Livestock Agent  
[hmcDonald@ksu.edu](mailto:hmcDonald@ksu.edu)

**Linda Elfers**

Agent Assistant  
[lelfers@ksu.edu](mailto:lelfers@ksu.edu)

#### K-State Northwest Research and Extension Center - Colby

**Jeanne Falk Jones**

Multi-County Agronomist for Cheyenne, Sherman, and Wallace Counties  
[jfalkjones@ksu.edu](mailto:jfalkjones@ksu.edu)

*Knowledge  
for Life*

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 physical, vision or hearing disability, or a dietary restriction please contact Karen Nelson at (785)890-4880.