

K-STATE

Research and Extension

Sunflower Extension District #6

October 2023

Go to www.sunflower.ksu.edu for more details on these programs.



October 2023

Online! Newsletter

www.sunflower.ksu.edu

Sunflower Extension District

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Sharon Springs Office

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Sharon Springs, KS 67758
(785) 852-4285
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St. Francis, KS 67756
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Sunflower Extension District Appreciation Award

Extension Appreciation Awards are selected in October and given annually to our local community members who go above and beyond to support Extension Programming and the mission of K-State Research and Extension. We are excited to honor these deserving recipients!



Sherman County
Recipient Jen Sanderson,
presented by Travis
Gattshall, Extension Board
member

Wallace County
Recipient Connie Hudson, presented by
Melinda Daily, Extension Agent



Cheyenne County
Recipient Ruth Millikan, presented by
Amy Hendricks,
Extension Board member





Rate of Dry Down in Sorghum Before Harvest

In recent years, a common question from farmers is related to the dry down rate for sorghum when approaching the end of the season. Based on historical information, the average dry down rate depends on the weather, primarily temperature and moisture conditions. If the weather outlook for October and November favors below normal precipitation, the dry down rate for sorghum could be faster than average. However, any sorghum impacted by freeze (should an event occur) will present challenges in how quickly the grain will dry down. This is because if the grain has not reached physiological maturity, there is quite a bit of moisture in the grain, especially in the interior portions of a kernel.

From a crop perspective, we predict growth stages based on growing degree days (GDD). These growing degree days can be tracked for each crop at the Kansas mesonet website, <http://mesonet.k-state.edu/agriculture/degreedays/>. This will show how many GDD have been accumulated during this growing season for your local mesonet station and compare that to the normal number of GDDs.

The overall cumulative GDD from flowering to maturity is about 800-1200 (based on 50 degrees F as the base temperature), with the shortest requirement in GDD for short-season hybrids. Before maturity, from beginning of grain filling (soft dough until maturity), grain moisture content within a grain will go from 80-90% to 25-35% where black layer is usually formed (Figure 1). From maturity (seen as a “black-layer” near the seed base; Figure 1) to harvest time, sorghum grain will dry down from about 35 to 20% moisture, but the final maximum dry mass accumulation and final nutrient content will have already been attained at maturity.

Grain water loss occurs at different rates but with two distinct phases: 1) before “black layer” or maturity (Figure 1), and 2) after black layer. For the first phase, Figure 1 presents the changes in grain moisture from soft dough until physiological maturity of sorghum.

To answer the rate of dry down question from many of our farmers, a study was conducted in central KS to investigate the effect of the grain dry down rate from the moment of “black layer” until commercial harvest grain moisture is reached. For the conditions experienced in 2019 (from early September until early October), the overall dry down rate was around 0.7% per day (from 34% to 17% grain moisture) – taking an overall of 26 days (from September 9 to October 10).

This dry down process can be delayed by:

- Low temperatures
- High humidity
- High grain moisture content at black layer (38-40%)

It is expected that the dry down rate will decrease to around <0.5% per day for late-planted sorghum entering reproductive stages later in the growing season. A similar decrease is also expected for sorghum that was exposed to late-season stress conditions (e.g., drought, heat, and freeze). Under these conditions, maturity may be reached with high grain water content and the last stages after black layer formation could face lower temperatures and higher humidity. These main factors should be considered when the time comes to predict harvest.

Grain-Filling Process



Stage 7

Stage 8

Stage 9

Soft-Dough
Grain formation begins after flowering and grain fills rapidly

Hard-Dough
75% grain dry weight, nutrient uptake almost complete

Physiological maturity
Maximum dry weight achieved. Identified by dark spot on bottom

Moisture Content



80-90%

50-60%

25-30%

Figure 1. Sorghum growth stages from half-bloom and grain fill.



K-State releases app for animal record-keeping

CalfDex now available for iPhone, Android devices

K-State Research and Extension news service

MANHATTAN, Kan. – Kansas State University agricultural economics and veterinary medicine staff are taking their knowledge on animal record-keeping to mobile phones with an app that is now available in app stores for iPhone and Android devices.

K-State livestock economist Ted Schroeder said the app, called CalfDex, is free to download. It was developed by agricultural economist master's graduate Jake Hefley (who now works at the University of Missouri), master's candidate Audrey Marchek, K-State veterinarian Bob Larson and Schroeder.

The project was funded by a grant from the USDA Federal-State Marketing Improvement Program.

“Our team is eager to provide users with a convenient and easy-to-use modern animal data management tool to keep pace in an ever-changing industry,” Schroeder said. “Considering the growing importance of information exchange in the beef supply chain, there is value in an application that has the ability to store and upload data at the whole-herd and individual animal levels, while also facilitating easy downstream data sharing.”

The app is designed for use in the field even where cell phone service is not available. Schroeder said CalfDex enables producers to maintain efficient and accurate calving, weaning and treatment records – mitigating the risk of clutter, data loss and misplacement that is commonly seen with paper records. The data is also stored across calving seasons for easy access.

Schroeder said the app allows users to protect information with a unique email address and password, established by the user.

“Because it has the capability to track multiple herds and individual animal information, CalfDex is tailored to meet the needs of all sizes of calving operations, from large purebred enterprises to a 4-H or FFA student beginning their first beef breeding project,” Schroeder said.

More information on the app, including a description of its functions, [is available online](#), as well as on [Ag-Manager](#), a website maintained by K-State's Department of Agricultural Economics. A tutorial is available at <https://calfdexapi.azurewebsites.net/>, or questions can be directed by email to CalfDex@ksu.edu.



GREAT PROGRAMS COMING YOUR WAY

- DO YOU HAVE DIABETES?
 - WANT TO MAKE THE BEST CHOICES FOR YOUR HEALTH?
- WE CAN HELP...

Dining with Diabetes



Date: Begins October 30 in Sharon Springs at the CAB 5:30-7:30 p.m. (M.T.)

Begins November 2 in St. Francis at the United Methodist Church from 2:00- 4:00 p.m. (C.T.)

Nutrition and physical activity are keys to managing your type 2 diabetes, but where do you start? The *Dining with Diabetes* program can help!

Designed especially for people with type 2 diabetes this program will help you learn the skills needed to promote good health.

Dining with Diabetes is taught by trained and caring educators. Program includes:

- planning meals and snacks
- cooking demonstrations
- motivation and support
- ideas for being more active.

Dining with Diabetes schedules:

Sharon Springs	Monday, October 30th Monday, November 6th Monday, November 13th Monday, November 20th
St. Francis	Thursday, November 2nd Thursday, November 9th Thursday, November 16th Thursday, November 30th

RECIPE DEMO AND TASTING EACH CLASS
Call Melinda Daily at 785-852-4285 or email her at mdaily@ksu.edu Maximum 16 participants
Program fee is \$25.00

Stay Strong, Stay Healthy



Coming the end of November:
“Harvest of Holidays”

What is Stay Strong, Stay Healthy Strength Training?

Strength training has been scientifically proven to be safe and effective for both men and women at any age.

Why Strength Training?

Strength training keeps your body and mind functioning at their best! Regularly completing strengthening exercises will help you build muscle and increase bone density, preventing frailty and osteoporosis.

What are the benefits?

- | | | |
|---------------------------|--------------------|---------------------------------|
| Increases muscle strength | Improves balance | Enhances flexibility |
| Strengthens bones | Relieves arthritis | Helps control weight |
| Lifts depression | Reduces stress | Reduces risks for heart disease |

In St. Francis at the United Methodist Church at 10:30 c.t. for 1 hour on Tuesday & Thursday for 8 weeks. Starting date Oct. 31 through December 21st.

Call the Sunflower Extension Office to sign up at 785-332-3171. I will be offering a Level 2 for those that have done the level 1 and are ready for more. Cost for the 8 week program is \$10.00.



OCTOBER 1 OPEN ENROLLMENT BEGINS!



October 1, 2023

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

CHOOSE YOUR CLUB!

Cheyenne County

Go-Getters

Leaders: Heidi Ketzner

Plum Creek

Leaders: Sharissa Andrist

Sherman County

Prairie Dale

Leaders: Amanda Schilling & Kelsey Stephens

Ruleton Eager Beavers

Leaders: Travis & Colleen Gattshall

Wallace County

Harrison Endeavors

Leaders: Becky Vandike

Weskan Windmills

Leaders: Heavenly McQuillan & Stacy Riedel

Pleasant Hill

Leaders: Erika Zimbelman

Lawn Ridge

Leaders: Crystal Ludowese & Matt Wilson

Country Clovers

Leaders: Penny Nemechek & Mandi Martin

Sunflower

Leaders: Peggy Berls & Julie Quain

Ladder Creek

Leaders: Lynn Perry & Lindsay Hartman

Smoky Valley

Leaders: Peggy Fischer & Jori Daily & Brynne Wright

Choose Your 4-H Projects

https://www.sunflower.k-state.edu/4-h/county_projects/index.html Sunflower District Website

<https://www.kansas4-h.org/projects/> Kansas 4-H Website

Choose a project area to explore or re-explore and do something new!

Find ideas of things you can choose to learn or do in each project.

Learn about available project resources. (County offices have check-out copies of many of these.)

State and regional offered workshops and learning opportunities will be listed.

Find Kansas Clover Classroom learning activity—if you are a junior leader, these work for a project meeting.

**“GOOD LUCK” to the “2023”
Sunflower Extension District #6
“SHOOTING SPORTS TEAM”
24 members will be competing on
October 14th & 15th**





District Achievement Banquet Dates

Wallace County—November 5th

*with Officer’s Training to follow

Sherman County—November 19

*with Officer’s Training to follow

Cheyenne County—No date set yet

Kansas Youth Leadership Forum (KYLEF)

What: Build your leadership skills and potential through workshops, consulting groups, inspirational speakers and more. In addition, the 2024 State 4-H Youth Leadership Council will be elected and up to six National 4-H Conference delegates will be selected through an interview process at KYLF.

Objectives:

- Broaden your understanding of the meaning of leadership and the qualities of a leader.
- Practice leadership skills you can use in other situations, like your local club, school and community.
- Improve interpersonal communication skills.
- Gain confidence.

When: November 18-19, 2023

Where: Rock Springs 4-H Center

Who: Youth 14-18 years of age before January 1, 2024

2023 Fees: \$200 and additional optional \$50 for Friday overnight and breakfast.

Registration Deadline:

Deadline - Monday October 16, 2023 by 11:59 p.m.




<http://www.facebook.com/sunflowerextensiondistrictcheyennecounty4h>

<http://www.facebook.com/sunflowerwallace>

<https://www.facebook.com/sunflowerextensiondistrictshermancounty4h/>



Sunflower District 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1. 4-H Online 2.0 Open Enrollment begins:	2.	3. WA— Record Books Judged	4. 4-H Spirit Day	5.	6.	7.
National 4-H Week October 1st—7th						
8.	9. Extension Office Closed 	10.	11.	12. SH—Kansas Project Record Books due to the Extension Office	13.	14. 4-H State Shooting Sports Competition October 14th & 15th
15.	16. SH—Match Day Applications due	17.	18.	19.	20.	21.
22.	23.	24.	25.	26.	27.	28.
29.	30.	31. Halloween/ Trunk or Treat 				



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Vacant

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K-State Northwest Research and Extension Center - Colby

Jeanne Falk Jones

Multi-County Agronomist for Cheyenne, Sherman, and Wallace Counties
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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. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. K-State Research and Extension is an equal opportunity provider and employer.