



Sunflower District

MAKING A DIFFERENCE



Serving Cheyenne, Sherman and Wallace Counties



Sunflower Extension District #6 Website

KSRE—Sunflower Extension District #6 www.sunflower.ksu.edu/



Facebook Pages

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K-State Sunflower District Agronomy www.facebook.com/kstatesunflowerdistrict.agronomy

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Para recursos en espanol por favor visite

www.kansas4-h.org/resources/spanish-information/index.htm

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Sunflower Extension District #6

K-State Research and Extension improves Kansans' lives, livelihoods and communities through education, research, engagement and leadership. Our professionals strive to make the university's unbiased research and knowledge accessible and relevant to every household.

Our philosophy is to help people help themselves by taking university knowledge to where people live, work, play, develop, and lead. We work at being responsive to the needs of the people by focusing our resources on providing quality information, education and problem-solving programs for real concerns.

We work collaboratively with extension volunteer leadership, city, county, state officials and departments, local businesses, agencies, non-profits, farmers, schools and other area stakeholders to create partnerships that guide the development of Sunflower Extension District programming.



Melinda Daily Family & Consumer Science Agent



Heather McDonald Livestock Agent



Karen Nelson 4-H Youth Development Agent



Jeanne Falk-Jones Multi-County Agronomist

Resources provided in our county offices

Radon Testing Kits
Water Testing Kits
Seed Germination Testing
Soil Fertility Testing
Feed Testing (Nitrate, Prussic Acid, Feed Value)
Private Pesticide Applicator Material and Testing

Soil Sampling Probe
Hay Sampling Probe
Tree, Plant and Insect Identification and Diagnosis
Pressure Canner Testing and Recommended Safe Canning Recipes
Food Safety and Preservation Resources
K-State Research and Extension Publications
4-H Project Literature







4-H Club Members Develop Skills for a Lifetime

4-H empowers young people to be confident, work well with others, take challenge in stride, and complete a job.

The Sunflower Extension District (Cheyenne, Sherman and Wallace Counties) has over 250 youth enrolled annually. Nearly seventy serve in a leadership role on a county/regional/state level annually. The skills they most often report learning and practicing: goal setting, leadership, planning/organizing, interpersonal skills, and teamwork.

Leadership roles include:

- Club officer
- Club representative to a county committee or council
- Project Jr. Leader
- Fair Jr. Superintendent
- 4-H Event Counselor, Group Leader, Presenter
- 4-H Judging Team
- 4-H Teen Leadership Group Member, Leader, Officer
- Regional or State 4-H Leadership Group

In a year end survey, 4-H Sunflower Extension District 4-H youth leaders report:

- Learning and practicing public speaking.
- Working as a group or team.
- Working in cooperation or partnership with an adult.
- Guiding, training, or advising younger youth and peers.

Youth leaders say 4-H has contributed to their ability to:

- Improve their leadership skills.
- Help a team/group reach its goals.
- Make sound decisions.
- Give presentations.





Youth Explore Projects at Day Camps

Three hundred thirty one youth participated in project related day camps in 2022. Sunflower Extension District sponsors a wide variety of day camps annually. These project-based 4+ hour experiences provide youth an opportunity to learn about new topics.

Topics change annually.



STEM

- BrickLab, Junk Drawer Robotics, Kitchen Chemistry

Outdoor Survival

- pop-can fishing, outdoor cooking, first aid

Livestock Learning

- introduction to livestock, showmanship

Babysitting

- the business of babysitting, safety

Aerospace

- hot air balloons and rockets

Photography

- perspective **Fishing**

- all about fishing

Farm to Fork

- dairy, sunflower plant

Little Camp on the Prairie

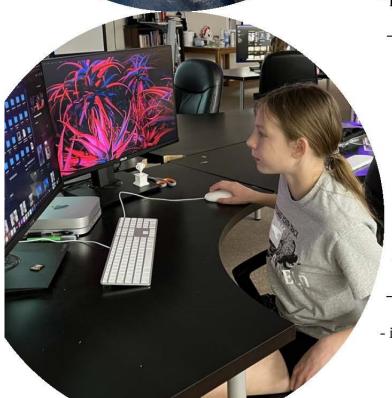
- making soap, lip balm, candles, butter

Project Spotlight with NW Tech

- variety of on campus hands-on learning

Growing Up Wild

- insects, gardening, pollinators, insect lifecycle





MAKING A DIFFERENCE

Sunflower District

Youth Development

Keys to Embracing Aging

This challenge approach introduces 12 healthy behavior practices that encourage optional aging throughout the life span and challenges participants to focus and improve upon these behaviors.

The challenges are: Positive Attitude, Eating Smart and Healthy; Physical Activity; Brain Activity; Social Activity; Tuning into the Times; Safety: Know Your Health Numbers; Stress Management; Financial Affairs; Sleep; and Taking Time for You.

Participants strongly agreed the program met their expectations; was informational, well worth their time. They learned that taking time for self is important, and that taking 10 minutes a day for themselves affects their health, well-being now and in the future, that proper sleep affects their health and well-being, managing stress in a positive way that can impact their quality of life, and that utilizing safe practices in all aspects of their life can influence their overall health, well-being, and life quality. This program was presented through and online webinar and in person.

Master of Memory

This program was developed to help older adults understand how memory works, identify ways to improve memory and pinpoint things in everyday life that many affect memory. Anything a person can do to stretch your brain and make it work is good "exercise" for your memory. Maybe it's a word puzzle, such as a crossword; maybe it's a conversation with another person about something you've read; maybe it's a continuing education course. Whatever you do, make it challenging for your brain. Melinda Daily has given this program to a group in St Francis and through Harvest of Holidays programs.

Harvest of Holidays Annual Program

Harvest of Holidays Stress Relief program was offered in all three counties, focusing on mental health. Giving participants the information to learn about different techniques to help when they are stressed. Some people take their health for granted until something goes wrong, reminding them that their picture of health is compromised and less than ideal. Participants learned how to identify what is causing the disruption and where to find help for the solution. Not only is it important to understand how to handle stress, but also where stress comes from. Identify who will be your support system? Who will you go to when you need to talk? Who will help you and your family during this time? Identifying people who will be in your support circle will mitigate feelings of being along during the stressful time and can be a source of comfort. Program ended with activities to help you get through stressful events, by engaging in some type of activity.

"They enjoyed immensely and wanted more."

Master of Memory Participant





Stay Strong Stay Healthy

The Stay Strong, Stay Healthy program focuses on improving the health and well-being of older adults. The goal of the program is to provide safe, structured and effective strength training for older adults. One of the best ways to keep your body and mind functioning at their best is to exercise. Regular participation in strengthening exercises can help you build muscle and increase bone density, which prevents frailty and osteoporosis. Because of this program, it gives them strength to follow through with more of their everyday activities and be more productive at work.

Some of the groups have continued to do exercises together after the program was over. They have learned by being involved in an exercise program, it is helpful in improving participants' health and quality of life, improve strength, balance, flexibility and even social activity is very important in their lives.

Dining with Diabetes

In the last couple years Melinda Daily has presented two online programs through K-State Research and Extension for Dining with Diabetes. Through the programs, participants learned that what they eat makes a difference in the outcome of their lives. The program has taught them how to manage their diabetes by finding recipes that will help them make healthier choices and that exercise is also very important. This year the hope is to have a face -to-face Dining with Diabetes program.



Culture of Health Grant

The World Health Organization has defined mental health as a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productivity and fruitfully, and is able to make a contribution to his or her community. Melinda Daily applied for this \$10,000 grant for the Sunflower Extension District (Wallace, Sherman and Cheyenne Counties) to expand awareness/knowledge of mental health well-being concerns in this rural district. Building community networks and offering **Mental Health First Aid Training** in our communities will help with awareness and knowledge around mental health issues and concerns. This training has been given to all school staff in Sharon Springs and Bird City. Future plans are to continue with this training, offering it at the Goodland Library and other locations.





Ag and Natural Resources: Livestock Production

Sunflower District Livestock Production program's goal is to provide farmers, ranchers, landowners/managers, and industry with unbiased, researched-based information from K-State University and other credible institutions. Although access to information currently is abundant, extension can offer trusted education or resources that are tailored to our unique environment where livestock are managed. Furthermore, livestock producers in the district can trust that the information that they receive from K-State Research and Extension is backed by science and research and use the knowledge received to maximize their operation's productivity and profitability. Cheyenne, Sherman, and Wallace counties are home to 86,000 head of cattle including calves, according to the most recent estimate determined by the U. S. Department of Agriculture. As the county's most abundant livestock species, beef cattle are the main subject of livestock programming. However, extension is a source for education and resources for all livestock species. Working with state specialists and university researchers, the Sunflower District's Livestock Production Program has been a source of information and educational programming to farmers and ranchers managing thousands of cows.



Forage and Management Considerations for the Future

In the fall of 2022, a meeting centered around forage and management considerations for livestock producers was held in Bird City to aid them in moving forward in times of drought. Working with extension specialists, producers were able to receive information and carry on discussion about forage inventories, nitrate and prussic acid concerns, as well as feeding cows and backgrounding calves into the fall and winter. In a time of drought, limited feed resources, and high input costs, producers were able and encouraged to work through their individual situations with beef extension specialists to make more informed decisions moving forward.



Livestock Learning Day

The Livestock Learning Day, held in the summer of 2022, was a day full of fun and learning for more than 40 area youth. Ranging in skill level and previous experience, the youth participants were able to pick three species of six total including sheep, goats, swine, beef, poultry & horses. In each of their selected sessions, they were able to learn and apply a range of information from animal handling, care, safety, and grooming among other things. Of the participants, 95.2% agreed that they learned something brand new, while 78.5% strongly agreed. Furthermore, 95.2% of participants agreed that they could use what they learned in a new setting, and 97.6% agreed that they would like to participate in the program again. The Livestock Learning Day was a huge success made possible by many volunteers who gave their time and expertise to teach area youth about livestock!



Beef Backgrounding

The Beef Backgrounding program held in Goodland fall of 2020, gave producers knowledge and resources regarding calf health during weaning and into the feeding period, value added vaccine programs, and nutrition programs to maximize calf performance and profitability. As a result of this program, a deeper relationship was developed between the producers involved and the district livestock extension agent, Heather McDonald who developed feed ration programs for these producers through their backgrounding phases for consecutive years since.

Utilizing K-State Wheat Plots to Inform Farmers

Wheat demonstration plots and the corresponding wheat plot tours have been an annual occurrence across Cheyenne, Sherman and Wallace Counties for over 50 years. The purpose of each wheat demonstration plot is to evaluate wheat varieties, for their fit in our northwest Kansas production systems. The plots are also utilized for emerging pests and production concerns.

When selecting wheat varieties for the plot, both new varieties and varieties with good production histories in the area are included. Each wheat plot typically contains between 18 and 30 wheat varieties. The variety list consists of both red and white hard winter wheat and include herbicide tolerant varieties and varieties with tolerance to specific insect pests and diseases. Yield results from the demonstration plots and replicated research trials for that year, and prior years, are shared with area farmers to show how the varieties performed with varying environmental stresses.

Each of these plots are located with farmer-cooperators, in their fields and are cared for the same as the rest of the field. The farmer cooperators plant and harvest the wheat plots with K-State Agronomist Jeanne Falk Jones. The farmer cooperators include Mai Farms in Wallace County (50 years as a wheat plot cooperator), F & J Farms in Sherman County (40+ years), E & H Farms in Wallace County (11 years), and Hingst Farms (3 years).

At each of the wheat plots, a wheat plot tour is held the second or third week of June. The topics presented at the plot tours are determined by challenges occurring during that growing season. They include the strengths and weaknesses of the wheat varieties, disease pressure, insect concerns, soil fertility, weed control, seeding rates, harvest practices and crop rotations.

These plots are also scouted regularly for emerging pests. Information on the pests and management decisions at different wheat growth stages are shared with farmers on the K-State Sunflower District Agronomy facebook page via videos and posts with pictures. This timely relevant information is also shared via emails, in weekly radio programs on AM 730 and in local newspaper articles.

The wheat demonstration plots continue to be an important part of providing local, relevant, and timely crop production information to area farmers and agronomy professionals.







Dry Bean Production

Among Kansas crops, dry beans are one crop that is unique to the northwest corner of the state. Since 2019, K-State agronomists Jeanne Falk Jones and Lucas Haag have partnered with 21st Century Bean for on-farm, applied research with farmer cooperator's.

Traditionally, vine-type pinto bean varieties were grown and needed specialized equipment for harvest. In the last decade, pinto bean varieties were developed with an upright, bush-type architecture that can be harvested with the equipment used in other crops. Therefore, upright pinto beans may be an option for farmers who have not grown pintos before and do not have the specialized harvest equipment.

There were many questions about upright bean production – What row spacing should be used? What should the plant population be? Are there differences between varieties in how quickly they close the canopy to help with weed suppression?

The on-farm research showed there was not a significant difference between yields for 10- and 30-inch row spacings across the four varieties tested. There are yield differences when the varieties are planted at seeding rates of 60,000, 100,000 and 130,000 seeds per acre. A pinto bean variety trial has also been planted each year with the farmer cooperators and has included between 10 and 16 pinto bean varieties. Common varieties planted in northwest Kansas, like Cowboy and Lariat, continue to yield competitively with other vicinities. This research has been funded by a specialty crop block grant from the Kansas Department of Agriculture and 21st Century Bean.

In addition, research was started in 2022 on irrigated and dryland cowpeas (black eyed peas). Cowpeas are being included in research because they are more drought tolerant than many other dry beans. Therefore, they may also have a fit in northwest Kansas crop production.

In late August and early September, field days were held to share the research results and to tour local dry bean fields. In addition, dry bean production meetings have been held in Goodland to discuss dry bean production topics, focused on disease management, irrigation scheduling, planting/drilling, weed control and harvesting.





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