

K-STATE

Research and Extension

Sunflower Extension District #6



July 2022
Online! Newsletter

www.sunflower.ksu.edu

Sunflower Extension District

Goodland Office

813 Broadway
Room 301
Goodland, KS 67735
(785) 890-4880
Fax (785) 890-4879

Sharon Springs Office

118 N Gardner St.
P.O. Box 189
Sharon Springs, KS 67758
(785) 852-4285
Fax (785) 852-4284

St. Francis Office

212 E. Washington St.
P.O. Box 667
St. Francis, KS 67756
(785) 332-3171
Fax (785) 332-3199

*Knowledge
for Life*

K-State Research and
Extension is an equal
opportunity provider
and employer.

www.ksre.ksu.edu

July 2022

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

Inside Your Newsletter...

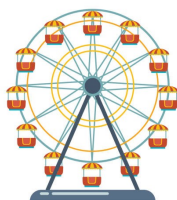
Palmer Amaranth Control in Grain Sorghum.....Crop Production page

Managing Feed Costs this Fall.....Livestock page

Principles of Home Canning.....Family & Consumer page

Help 4-H Members Prepare for Interview Judging.....4-H Youth Development page

Carnival Lights & Country Nights



Northwest Kansas District Free Fair, Inc.

July 30-August 6th
Goodland, Ks

4-H & Open Class registration opens on June 13, 2022

All 4-H entries are due Wednesday, July 13, 2022,
by 5:00 PM MST

2022 CHEYENNE COUNTY FAIR

**County
Strong and
Carrying On!**



**August 3-6
St. Francis, Kansas**

Wallace County Fair "4-H Empowers You"

July 23-30, 2022

4-H entries due to office
by July 8th





Palmer Amaranth Control in Grain Sorghum

Pre-emergence herbicides are critical for successful weed management in grain sorghum, especially for difficult to control species like Palmer amaranth. However, difficult weather conditions this spring resulted in poorer than expected weed control from pre-emergence herbicides in some locations in Kansas (Figure 1). This situation has resulted in questions asking how to control rapidly-growing Palmer amaranth in grain sorghum fields.

Unfortunately, post-emergence herbicide options in grain sorghum are limited. All of the available options are most effective when small (under 4 inches tall) weeds are targeted. This article will review the pros and cons of key post-emergence herbicides that control Palmer amaranth in grain sorghum. Combinations of the herbicides listed here will generally improve control.

Atrazine can control sensitive populations of Palmer amaranth and can be combined with other herbicides to enhance effectiveness. Recommended rates range from 0.25 to 2.0 pounds of atrazine (0.5 to 4 pints). Atrazine should be applied with crop oil or surfactant to control emerged weeds. Atrazine can be applied to grain sorghum between 3-leaf and 12 inches or between 6 and 12 inches in western Kansas.

Aim (carfentrazone) is a Group 14 herbicide that can be applied to grain sorghum between 4 inches and boot stage. It is less effective than some of the other herbicides in this article and requires good coverage for maximum effectiveness. Aim can be tank-mixed with atrazine, 2,4-D, dicamba, bromoxynil, and Huskie. Aim is likely to burn grain sorghum leaves, especially if applied in very hot, humid weather or if applied with crop oil. Leaf burn will also be greater if Aim is applied with bromoxynil.

2,4-D is an effective herbicide option to control Palmer amaranth. However, crop response should be expected, especially if applied in hot, humid conditions. Crop responses can include rolled leaves, lodging, and brittle stems. Grain sorghum is most tolerant of 2,4-D applications when it is 5 to 10 inches tall. Drop nozzles should be used when applying 2,4-D to grain sorghum greater than 8 inches. To reduce crop response, apply lower rates (2/3 pint) with atrazine, Aim, bromoxynil, or Huskie. Using crop oil in tank mixes with 2,4-D, will increase crop injury.

Dicamba, at the rates used in grain sorghum (0.5 pint), may be less effective on Palmer amaranth than 2,4-D. It can be applied to grain sorghum between 2 and 15 inches. Drop nozzles should be used if grain sorghum is 8 inches or taller to avoid damaging seed heads. Crop response, including rolled leaves and lodging should be expected, especially if applied in hot, humid conditions. Dicamba can be tank-mixed with Aim, atrazine, and bromoxynil.

Bromoxynil can be applied from the 3-leaf stage through boot stage. Crop response will be less with bromoxynil than other herbicides, but bromoxynil alone will not control Palmer amaranth larger than 4-leaf. Adequate spray coverage is needed for maximum effectiveness.

Huskie (pyrasulfutole+bromoxynil) is most effective when mixed with atrazine (up to 1 pound). When used alone, it can be applied between 3-leaf and 30 inches and should be applied with HSOC (high surfactant oil concentrate) or AMS + NIS. Huskie will cause leaf burn, which can be greater in fields where mesotrione was applied pre-emergence. Huskie plus atrazine may be tank-mixed with phenoxy broadleaf herbicides such as 2,4-D or dicamba as needed.

Additional information can be found in the [2022 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland](#), K-State publication SRP-1169. The use of trade names is for clarity to readers and does not imply endorsement of a particular product, nor does exclusion imply non-approval. Always consult the herbicide label for the most current use requirements.



Figure 1. Palmer amaranth in a well-advanced grain sorghum field that escaped effective treatment earlier in the growing season. Photo by Sarah Lancaster, K-State Research and Extension.



Managing Feed Costs this Fall

After limited forage and many producers depleting stored feed, some may be going into fall with concerns about affording cattle feed expenses. There are a few management strategies to reduce feed costs, maximize the available feed resources, and boost animal efficiency to stretch feed as far as possible. These tactics include, but are not limited to considering alternative feed ingredients, minimizing feed shrink/loss, analyzing rations or ingredients on hand, and implementing a ration formulation program.

While we must consider opportunity cost, on-farm commodities are generally more cost effective than feed purchased off farm. Through increasing the inclusion in the ration of commodities produced on the farm (i.e. straw) may reduce the feeding costs. However, cattle managers should always consider the impacts of any changes on the animal performance. If it costs more in decreased cattle performance than is saved in utilizing these on-farm commodities, then this strategy is not cost effective.

Producers may also consider alternative feed ingredients. High protein feed ingredients like distiller's grains, soybean hulls, and corn gluten meal can be a cost-effective substitute for a commercial protein product. Taking advantage of alternative feed sources can often reduce cost of feed per head. However, new sources of feed should be tested to determine nutritional value that can then be used to formulate a balanced ration. Furthermore, many of these products may have a shorter shelf life and be more inconsistent than a commercial product. However, in many cases utilizing these alternative sources may be worth the extra work with the savings that result.

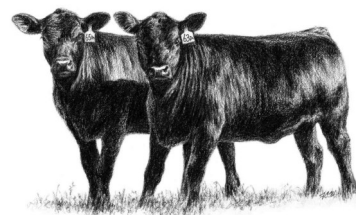
Care should also be taken to limit commodity shrink or loss from feed waste and the environment. The methods of storage and feeding can significantly impact the amount of feed loss. For example, losses through poor storage and feeding methods have been reported at more than 30% for some beef cattle herds (Gunn & Schwab, 2016). These losses may occur when silage piles are left untarped, baled hay is left unstacked and outside, and when ingredients like ground hay are blown away. These losses stress the importance of proper storage. If a producer manages 200 head of 1400 lb cows that are fed hay for six months of the year, they will feed approximately 710 tons of hay. At \$160/ton, if hay loss/waste was reduced by only 5% there is a savings value of over \$5500 that year alone. While the reduction of loss may amount to more than 5%, this example alone results in a savings of \$55,000 over 10 years assuming everything stays constant. These savings may encourage a hay shed that will shelter some hay and feed ingredients from the elements. Similarly, the reduction of feed loss may prove far more valuable than the cost of tarping a silage pile. When feed is short, these small steps may extend the resources to get cattle through the fall and winter.

Much like storage methods, how the feed is put up and fed can play a role in waste. Timing is something that should be kept at the forefront when harvesting and putting up hay during the summer as it can affect hay quality and nutritional value. As for feeding, a TMR (total mixed ration) can help reduce sorting and wasting. When given the choice cattle will sort out the best feed, grinding and mixing feedstuffs significantly reduces their ability to do so. Furthermore a TMR allows for specific formulations that ensure a nutrient balanced ration in every bite.

When feed resources are limited, efficiency is key. Beyond extending available feeds and considering alternatives, thinking on the animal side of things can prove to be a useful strategy. Take advantage of calf implants, ionophores, and feeding strategies such as limit feeding to improve feed conversion when possible. Along these lines, more efficient cattle can be selected thus resulting in genetic improvement in the herd. There are published EPDs to help producers select parent animals that are genetically predisposed to reduce feed intake without sacrificing animal performance. If feed efficiency is something of high importance to a producer, related EPDs should be considered during sire selection or bull purchases.

Finally, consulting with a nutritionist or other professionals and having feed rations tested can help ensure livestock nutritional requirements are being met and rations are cost-effective. Understanding the actual values of the feed ingredients instead of relying on average values can aid in meeting and not exceeding nutritional requirements if possible. If unsure where to start, contact your local extension office. There you will have access to feed sampling equipment, feed testing and ration formulation programs.

The take away message is that careful management can reduce feed loss, optimize animal performance, maximize ration. We cannot improve what we cannot measure. Paying closer attention and recording animal performance, being open minded to alternatives, and being aware of feeding costs and animal requirements can all cut costs and boost efficiency of the operation.



For more information on feeding in the fall, 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*.



Principles of Home Canning

Learn to preserve safely.
Training will be July 8, 2022
at the CAB in Sharon Springs



Recommendations to preserve food at home are based on science. This process is not the place to be creative and make up your own recipes. Doing this can lead to foodborne illness. While the practice of preserving food has existed for thousands of years, the methods have evolved to keep up with today's food safety issues.

Do not use any recommendations for home canning that are older than 1994. Significant changes were made by the U.S. Department of Agriculture at that time to keep canned foods safe.

Canning can be a safe and economical way to preserve quality food at home. Disregarding the value of your labor, canning homegrown food may save you half the cost of buying commercially canned food. Canning favorite and special products to be enjoyed by family and friends is a fulfilling experience and a source of pride for many people.

Many vegetables begin losing some of their vitamins when harvested. Nearly half the vitamins may be lost within a few days unless the fresh produce is cooled or preserved. Within 1 to 2 weeks, even refrigerated produce loses half or more of some of its vitamins. The heating process during canning destroys from one-third to one-half of vitamins A and C, thiamin, and riboflavin. Once canned, additional losses of these sensitive vitamins are from 5-20 percent each year. The amounts of other vitamins, however, are only slightly lower in canned compared with fresh food. If vegetables are handled properly and canned promptly after harvest, they can be more nutritious than fresh produce sold in local stores.

The advantages of home canning are lost when you start with poor quality fresh foods; when jars fail to seal properly; when food spoils; and when flavors, texture, color, and nutrients deteriorate during prolonged storage

Ensuring safe canned foods

Growth of the bacterium *Clostridium botulinum* in canned food may cause botulism — a deadly form of food poisoning. These bacteria exist either as spores or as vegetative cells. The spores, which are comparable to plant seeds, can survive harmlessly in soil and water for many years. When ideal conditions exist for growth, the spores produce vegetative cells which multiply rapidly and may produce a deadly toxin within 3 to 4 days of growth in an environment consisting of:

- * a moist, low-acid food
- * a temperature between 40° and 120°F
- * less than 2 percent oxygen.

Botulinum spores are on most fresh food surfaces. Because they grow only in the absence of air, they are harmless on fresh foods.

Most bacteria, yeasts, and molds are difficult to remove from food surfaces. Washing fresh food reduces their numbers only slightly. Peeling root crops, underground stem crops, and tomatoes reduces their numbers greatly. Blanching also helps, but the vital controls are the method of canning and making sure the recommended research-based process times are used. Properly sterilized canned food will be free of spoilage if lids seal and jars are stored below 95°F.

Come join me on Friday, July 8, at the CAB in Sharon Springs to learn more about canning produce safely. Call the office at 785-852-4285 for information.



When 4-H members make and take their projects to the fair, they are practicing skills ...

- problem solving
- decision making
- project management
- communications
- public speaking

Help members prepare for individual conference or face-to-face judging through role play.

Get Acquainted – The judge will usually invite the member to sit and then will introduce him/herself. H/she will ask some basic get-acquainted questions: • **What is your name?** • **What grade are you in school?** • **What got you interested in this project?**

Exhibitors should make eye contact with the judge and answer questions as clearly as possible, with enthusiasm. Coach them to hold their heads up and avoid answering with a nod or a shake of the head. Encourage them to SMILE.

Share – The exhibitor shares information about the exhibits h/she’s brought for judging. • **Tell me about this exhibit.** • **Where did you make this exhibit?** • **How did you . . . ?** • **When did you . . . ?** • **What type of tools or equipment did you use?**

If the member has more than one exhibit item, the judge may ask which is his/her favorite item, and why. If there is only one item, the judge may ask the member his/her favorite part of preparing the exhibit or completing the project, and why.

Process – The member analyzes what h/she did and reflects on what’s important. Examples of questions a judge may ask: • **How much did your exhibit cost?** • **What problems did you have?** • **What worked and didn’t work?** • **What was the most difficult part?**

• **Why is it important to . . . ?** • **Where did you find the information on . . . ?** • **Where did you get the idea for . . . ?** • **Do you have someone at home or a project leader or helper in your club that gives you advice on your project? Have you had any project meetings or field trips?** • **If you could make this exhibit again, how would you change it?**

Generalize – The exhibitor will generalize what h/she has learned and connect the learning to other situations. The judge may talk about the best things h/she sees in the exhibits and some ways to improve the things that need work. Encourage the member to really listen as the judge gives reasons for his/her placings. • **Where/how did you learn to make this kind of exhibit?** • **What are some new things you learned by making these exhibits?** • **What was the most important thing that you learned?** • **I wasn’t quite sure about . . . Could you explain . . . ?** • **That’s coming along nicely. What if you tried this? What would happen?**

Apply – The exhibitor can reflect on what h/she learned and think about how to apply it in the future. • **What are some new things you could learn in this project in the future? What else would you like to learn?** • **What are you planning to make or exhibit next in this project?** • **How might you use your new exhibit or project skills to help your 4-H club? Your family? Your school? Your community?** • **How could you help someone else learn your project skills?** • **What exhibits will you enter in next year’s fair?**

Wrap up – Usually, the judge will end on a positive note. A smile, a call for final questions, a thank you and a word of encouragement to enter again next year usually work. This helps to leave the exhibitor feeling good about the judging experience.

Source: <https://fyi.extension.wisc.edu/dane4hyouth/files/2012/12/Preparing-for-Exhibit.pdf> (Find additional questions in the document.)

Things to keep in mind...about Judges and the Judging Process

What if you were the judge? What rating would you give your project if you were judging it? **Be honest!**



If you have done your best work on your project, it’s disappointing not to get the rating you were expecting. Remember – the judge’s opinion is simply one person’s opinion at one point in time. A different judge may have given you a different placing. Even if you don’t agree with the judge, it’s worth paying attention to what h/she has to say about your project. You could get some great ideas for how to do even better next time. Here are some tips about feedback:

- Pay attention to what the judge *liked* instead of getting upset about what he or she didn’t like. Even if there were some negative comments, there were probably just as many positive ones!
- Don’t be nervous about face-to-face judging. Relax so you can be your friendly, natural self when the judge meets with you. And if you don’t understand something the judge says, be sure to ask questions.
- Think about how you can use the judge’s feedback. What can you do differently if you intend to keep working on this kind of project? What will you want to do the same way?

Source: <https://fyi.extension.wisc.edu/shawano4h/fair-information/shawano-county-fair-judging/>

Contact:

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

K-STATE
Research and Extension





2022 CHEYENNE COUNTY FAIR

Cheyenne County

Cheyenne County Fair Pre Entry is **Due July 13th**. Watch your mail for information regarding Fair entry.

County Strong and Carrying On!



August 3-6 St. Francis, Kansas



CLEAN UP

July 26th will be the clean up and set up for the Fair starting at 6 pm. Please come and help get ready for the Fair, there will be a job for everyone.

Attention New Rule-

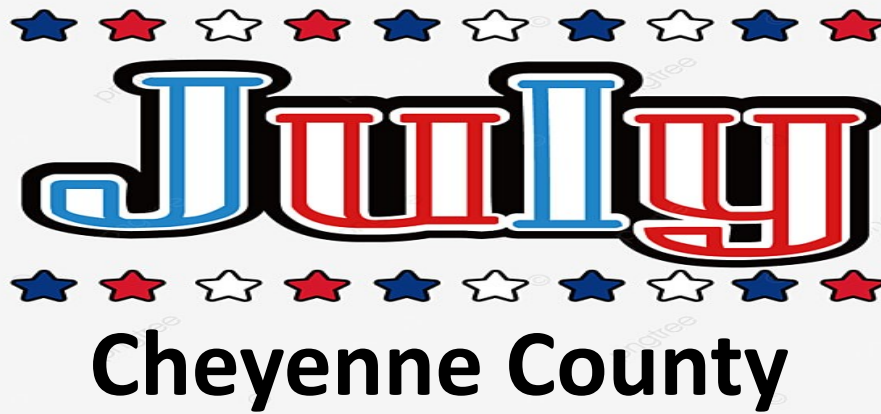
All 4-H and FFA Exhibitors must attend Pre-Fair Cleanup, work at least one shift in the 4-H Council Food Stand and Post-Fair Cleanup. Failure to participate in Pre-Fair Cleanup and work one shift in the 4-H Council Food Stand, will disqualify any previously eligible Exhibitors from participating in BOTH the Static and/or Premium Sale. Failure to participate in the Post-Fair Cleanup will disqualify any previously eligible Exhibitors from participating in the following years County Fair Static or Premium Sale.

Online Resources-

<http://www.cheyenneksfair.com>

<http://www.sunflower.k-state.edu>

On Facebook- Sunflower Extension District Cheyenne County 4-H
Phone- 785-332-3171



July
Cheyenne County

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4 	5	6	7 District Horse Show	8	9 Livestock Learning Day
10	11	12	13 Fair Entry Deadline 	14	15 KSF Live-stock Entry Deadline	16
17	18	19	20	21	22 Fair Dog Show	23
24	25	26 Fair Clean Up/ Set Up 6pm	27 Visual Arts Judging	28	29	30 Fair Archery Contest 9am
31 Fair Shotgun Contest 3pm						



Important Dates

- July 4Extension Office Closed/ Happy Fourth
- July 9.....Livestock Learning Day/St. Francis
- July 13.....Fair Entries Due
- July 13.....Style Revue Scripts Due
- July 16.....Cloverbuds
- July 17.....Sunflower
- July 23.....Dog Show
- July 25.....Pet Judging
- July 25.....Poultry Testing
- July 26.....Fashion Revue Judging
- July 26.....Fashion Public Style Revue
- July 28.....Fairground Clean-up
- July 29.....Horse Show
- July 30.....Fair Parade
- Aug 2-5.....Fair
- Aug 4State Fair Sign up - Fair Office
- Aug 4..... Grand Champion Jacket - Verification and try on for sizing in Fair Office

Country Clovers, Ruleton Eager Beavers, & Prairie Dale Meetings TBA



**Don't Forget!
4-H Fair Entries &
4-H Style Revue Scripts
are due July 13, 2022,
by 5:00 PM MST.**

The 2022 NWKS District Free Fair is open for entries on June 13, 2022, for the public and 4-H.



<https://nwksfair.fairentry.com/Fair/SignIn/17358>

**KS State Fair 2022
Pre-Fair Entries**



**4-H Horse Entries
Postmarked by: August 1, 2022**

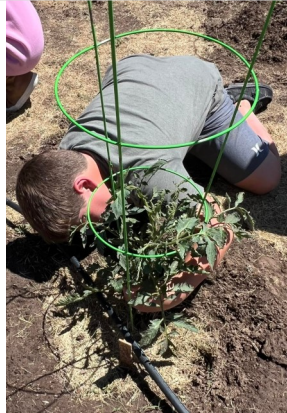


The Summer has kicked off to a great start for the Sunflower Extension District #6, Summer Day Camp Activities.

Little Camp on the Prairie



Gardening



Fishing Clinic



Aerospace Camp




Like us on
Facebook

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



Sherman July 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1.	2.
3.	4. Extension Closed  Happy 4th of July	5.	6.	7.	8.	9. Livestock Learning Day St. Francis
10.	11.	12.	13. <u>Fair Entries Due</u> By 5:00 PM	14.	15.	16. Cloverbuds 10:00 AM
17. Sunflower 3:00 PM 4-H Building	18.	19.	20.	21.	22.	23. Dog Show 8:00 AM Ag Building
24.	25. Pet Judging Poultry Testing 4:00 PM MT Beef Barn Goodland	26. Fashion Revue Judging & Fashion Public Style Revue	27.	28. Fair Clean-up 8:00 AM MT	29. Horse Show 8:00 AM MT	30. Fair Parade 4:00 PM MT Line-up 5:00 PM MT Parade Begins
31.						



Dates to Remember

July

- 4- Office Closed
- 8- Fair Entry Forms due
- 9- Livestock Learning Day—St Francis
- 22- Fair clean up
- 23- Fair Horse Show
- 25-30- FAIR WEEK

Wallace County Fair entry forms are due no later then July 8th.

This helps us to make schedules.

GET YOUR FAIRBOOK !

Fair books are ready. They may be picked up at the Extension Office or local businesses around town.



DON'T FORGET!!

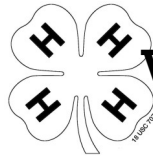
4-H Fairgrounds Clean Up will be held Friday, July 22.

4-H Club Fair Responsibilities

- Weskan Windmills-County Fair Horse Show
- Smoky valley-Snack Shack, Set-up, Clean-up
- Harrison Endeavors- 4-H Style Revue, Set-up, decorate, snacks & drinks, Clean-up

Attention 4-Hers:

Stop by the Extension Office to pick up photo-boards, food & nutrition stickers, clothing tags for Fair exhibits.



Wallace County Fair Theme

Wallace County Fair

“4-H Empowers You”

*****Reminder*****

Wednesday, July 27, 2022

Animals all need to be in place by 9:00 a.m..

Weigh-In order:

Steers, Swine, Sheep, Goats

Small animals will be inspected prior to unloading. Livestock pictures will be Wednesday 2-4 p.m.


**Beef Show Friday July 29 @ 9:00 a.m. is a Blow & Go Show
(If you need the rules for this please get ahold of the Extension Office)**

July 2022

Wallace Co.



Sun Mon Tue Wed Thu Fri Sat

					1	2
3	4 -Closed- 	5	6	7	8 Fair Entry Forms Due	9 Livestock Learning Day —St Francis
10	11	12	13	14	15	16
17	18	19	20	21	22 Fair Clean-up	23 Fair Horse Show
24	25	26	27	28	29	30
-----FAIR WEEK-----						
31						



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

Non-Profit
Organization
U.S. Postage
PAID
Permit No. 525
Manhattan, KS 66502

Sunflower Extension District #6 Offices

www.sunflower.ksu.edu



Goodland Office

Karen Nelson

4-H Youth Development Agent/Director
karennelson@ksu.edu

Sherri Keith

Office Professional
sherrick@ksu.edu

Sharon Springs Office

Melinda Daily

Family & Consumer Science Agent
mdaily@ksu.edu

Wendy Benisch

Office Professional
wbenisch@ksu.edu

St. Francis Office

Heather McDonald

Livestock Agent
hmcDonald@ksu.edu

Linda Elfers

Agent Assistant
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

*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.