

# K-STATE

Research and Extension

## Sunflower Extension District #6



November 2022



Newsletter

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

### Sunflower Extension District

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## November 2022

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

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## Harvest of Holidays 2022!!



A common misconception about the aging brain is that there is nothing that may be done with regard to memory and that new information cannot be learned. Often simple lapses in memory or decline in recall speed are mistaken for dementia, such as Alzheimer's disease. This lesson will provide helpful information about memory function and various strategies to help.

Come learn more about this by attending one of the following locations.

**Cheyenne Co. — November 30 at 6:00 p.m. (c.t.)**  
at the CSM Event Room, 214 West Washington Street, St. Francis.

**Sherman Co.—December 7 at 5:30 p.m. (m.t.)**  
at the Sherman County Public Library.

**Wallace Co. — December 14 at 6:00 p.m. (m.t.)**  
at the Sunflower Extension District office.





## Fall Anhydrous Applications

As soil temperatures cool across the area, it becomes much more attractive for producers to apply anhydrous ammonia for their 2022 corn crop. Fall anhydrous applications have some appeal to producers. For one thing, fall fertilizer application spreads out the workload. Therefore, there's more time to focus on corn planting in the spring. Secondly, wet conditions in the spring sometimes prevents producers from applying lower-cost anhydrous ammonia ahead of corn planting, and forces them to apply (potentially) more expensive sources after planting. Equally important this year will be anhydrous ammonia availability in the spring.

Keeping in mind those points, producers should be aware that there is potential for higher nitrogen (N) loss in the spring following a fall application, as a result of nitrification of the ammonium during late winter and very early spring and subsequent leaching, or denitrification (denitrification is not common in northwest KS) (Figure 1).

### Reactions of anhydrous ammonia in the soil

When anhydrous ammonia is applied to the soil, a large portion of the ammonia is converted to ammonium ( $\text{NH}_4^+$ ), and can be bound to clay and organic matter particles within the soil. As long as the nitrogen remains in the ammonium form, it can be retained on the clay and organic matter, and does not readily move in most soils except sandy soils with very low CEC, so leaching is not an issue.

At soil temperatures above freezing, nitrification occurs - ammonium is converted by specific soil microbes into nitrate-N ( $\text{NO}_3^-$ ). Since this is a microbial reaction, it is very strongly influenced by soil temperatures. The higher the temperature, the quicker the conversion will occur. Depending on soil temperature, pH, and moisture content, it can take 2-3 months or longer to convert all the ammonia applied in late summer/early fall to nitrate.

By delaying application until cold weather, most of the applied N can enter the winter as ammonium, and over-winter losses of the applied N will be minimal.

Traditionally, producers should wait until soil temperatures are less than  $50^\circ\text{F}$  at a depth of 4 inches before applying ammonia in the fall or early winter. Nitrification does not cease below  $50^\circ\text{F}$ , but rather soils will likely become cold enough to limit the nitrification process. In many areas of Kansas, soils may stay warmer than  $50^\circ$  well into late-fall and only freeze for short periods during the winter.

The use of a nitrification inhibitor such as N-Serve can help reduce N losses from fall N applications under specific conditions, particularly during periods when soil temperatures warm back up for a period after application.

One should also consider soil physical properties when considering fall application. Fall applications of N for corn should not be made on sandy soils prone to leaching. Rather, fall N applications should focus on deep, medium- to heavy-textured soils where water movement through the profile is slower.

### When is N lost?

When considering fall application of N, keep in mind that loss of N during the fall and winter is not normally a problem in Kansas. The conversion of "protected" ammonium to "loss prone" nitrate during the fall and winter can be minimized by waiting to make applications until soils have cooled, and by using products such as nitrification inhibitors. The fact that essentially all the N may remain in the soil as ammonium all winter, coupled with our drier winters, means minimal N is likely to be lost over winter.

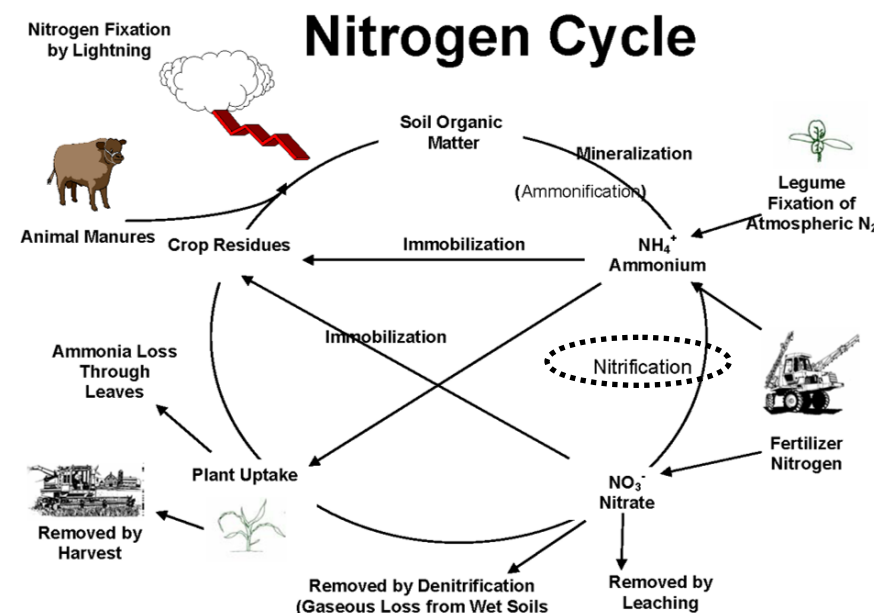
However, soils often warm up early in the spring and allow nitrification to get started well before corn planting. Generally, if the wheat is greening up, nitrification has begun. Thus, one of the potential downsides of fall application is that nitrification can begin in late February and March, and essentially be complete before the corn crop takes up much N in late May and June.

### Summary

If anhydrous ammonia is to be applied in the fall, there are a number of factors that must be considered, including soil texture, temperature, and soil moisture. Guidelines to consider:

- Do not apply anhydrous ammonia in the fall on sandy soils.
- On silt loam or heavier-textured soils, wait to apply anhydrous ammonia until soil temperatures at the 4-inch depth are below 50 degrees F (records indicate in most years this will be in November).
- Use a nitrification inhibitor such as N-Serve with anhydrous ammonia to help reduce fall nitrification rates.

To check the soil temperature for our area visit K-State Research and Extension Weather Mesonet at: <http://mesonet.k-state.edu/agriculture/soiltemp/>



**Figure 1.** The nitrogen cycle. The dotted box highlights nitrification, the process of converting ammonium to nitrate. The speed of this process is affected by the





### Ten Things to Know about Pasture Rangeland and Forage Insurance

After several years of below normal precipitation, livestock producers are constantly reminded how much they rely on the productivity and health of their pastures. However, there are tools available to help ease some of the stress, fund feed purchase and reduce the risk of receiving little rainfall for the next grazing season. Provided by the USDA Risk Management Agency (RMA), one tool is the Pasture Rangeland & Forage (PRF) insurance program. While it will not solve a drought, it may soften the impact of little precipitation on the producer's bottom line.

Here are ten key facts about the program given by Jennifer Ifft, *agricultural policy extension specialist*.

1. PRF makes automatic payment (indemnity) for hay or grazing acreage when local rainfall (precipitation) falls below the historic average.
2. Producers can select different triggers for payments, or coverage levels. 90% is the maximum and pays whenever rainfall drops below 90% of the historic average. 70% is the minimum.
3. Higher coverage levels pay out more often and cost more. Lower coverage levels pay out less often and cost less.
4. Payments are triggered by rainfall/precipitation in your local area, or USDA-defined grid (approximately 17 by 13 miles). There is a risk of NOT getting an indemnity when you experience low rainfall or receiving an indemnity when you have adequate or high rainfall.
5. The Federal government pays for part of the crop insurance premium, from 59% of the premium cost at the lowest coverage level of 70%, to 51% of the premium cost at the highest coverage level of 90%.
6. While the Federal government cost share or premium subsidy percentage decreases as coverage levels increase, the dollar amount or total dollar value of the premium subsidy typically increases as coverage levels increase.
7. In the long run, producers should receive more money in indemnities than they pay in premiums, due to the premium subsidy. However, there is no guarantee of this and several years can pass without any indemnities.
8. Producers must select at least 2 intervals and at most 6 intervals per year. Intervals are 2 adjacent months, for example June and July.
9. Summer months or summer intervals correspond to when producers typically face forage production risk.
10. Summer intervals have lower premiums and expected indemnities. Winter intervals have higher premiums and expected indemnities.

Below is discussion from Jennifer Ifft's article *Safety Net Program Payments and Drought Costs*. Full article found in the September 2022 issue of Beef Tips [www.asi.k-state.edu](http://www.asi.k-state.edu)

Having to purchase costly hay or other feedstuffs, coupled with high transportation costs, is a difficult decision, especially with uncertainty when precipitation and soil moisture will return to normal. Likewise, selling healthy, still-productive cows or breeding stock can be both financially and personally painful. While each operation is unique, the financial tradeoff many producers face is to (1) purchase forage for cows until growing conditions improve, (2) increase culling rates and restock when feed prices and growing conditions improve, and/or (3) a combination of (1) and (2). Paying for feed now allows a producer to take advantage of current high feeder cattle prices and be at or closer to capacity when growing conditions improve but involves uncertainty when precipitation will return and if the feed cost can ever be recouped. Increasing culling rates saves on feed costs but can significantly increase the time it takes for an operation to return to normal or regular capacity and replacements may be at premium prices.

What role can safety net payments play when faced with these decisions? Potential PRF payments have been substantial in Finney Co. (for example), depending on coverage and intervals selected. 2022 net payouts for 11 acres to date could pay for the cost of purchasing hay for a cow for about 131 days under current prices, but would not stretch as far under higher prices, about 110 days. Potential PRF payouts in Labette Co. are much smaller due to the sudden onset of drought during the growing season, but payouts may be higher as precipitation for summer intervals is recorded/completed. However, FSA LFP payments are available in both counties and could cover about 65 days of feed in Finney and around 69 days of hay in Labette, or only about 55 days for both counties, under higher hay prices. Further, additional PRF payouts might be made under continued drought, as well as FSA disaster payments.

From a financial perspective, safety net payments could also be considered as a source of savings to restock, if a producer chooses to increase culling rates. For example, the difference between a selling cull cow and replacement heifer may be \$0 to \$1400 in our example. While cull cows and replacement heifers are not directly comparable from a productivity perspective, considerable financial resources may be required for restocking. Combined 2021 and current 2022 PRF payouts for hay on 11 acres and 2022 LFP payouts for a cow-calf pair in Finney Co. could go a long way in making up this difference (\$714 in our example), especially if feed savings are accounted for. Cumulative safety net payments in our example are lower in Labette County, but this may change if the drought continues.

The purpose of this article is to demonstrate the role safety net program payments can play in managing drought. While every operation faces unique costs and most face tough decisions regardless, our examples demonstrate how the extra income provided by safety net programs can be substantial.

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





# Harvest of Holidays

Exercise your  
Brain!



This years Harvest of Holiday Program will provide lots of interaction and teach you about strategies to help keep your brain active through your lifespan.

It will help you understand how memory works, identify ways to improve memory and pinpoint things in everyday life that may affect memory.

Many people believe that memory loss and aging go hand-in-hand: as a person gets older his or her memory begins to fail. While some change may be expected as you age, that doesn't mean you can't do something about it, in the absence of a brain disease, such as Alzheimer's Disease — you can be proactive in using some strategies and lifestyle adaptations.

The Cost of the program will be **\$5.00** per person.

There will be food and drinks for you to try and some door prizes. Nothing BIG!

## Come to our Harvest of Holidays Program

**Cheyenne Co.** — November 30 at 6:00 p.m. (c.t.) at the CSM Event Room,  
214 West Washington Street, St. Francis.

**Sherman Co.**—December 7 at 5:30 p.m. (m.t.) at the Sherman County Public Library.

**Wallace Co.** — December 14 at 6:00 p.m. (m.t.) at the Sunflower Extension District office.



## Healthy Eating



Don't let a busy day keep you from eating healthy food. It's quick and easy to make meals that are good for you and won't take a bite out of your time or wallet.

### **Avoid the fast-food trap.**

- Many fast foods are high in salt, fat and sugar.
- Super-sized portions pile on the calories.
- This can lead to health problems such as weight gain, high blood pressure, heart disease and type 2 diabetes.

### **Healthy meals don't have to take time.**

- Use prewashed veggies and salad greens.
- Try frozen fruits and vegetables.
- Cook grains like brown rice, oatmeal or quinoa ahead and store in the freezer.
- A microwave is good for quick defrosting or heating.

### **Cook in large batches when you can.**

- Once a week make a large pot of soup, stew or chili.
- Double recipes and freeze some for future meals.
- Throw a few ingredients in a crockpot in the morning. When you get home, dinner is waiting!

### **Carry your own reusable water bottle.**

### **Keep healthy snacks handy.**

### **Pack healthy lunches the night before.**

### **Find healthy places to eat on the go.**

### **To save time and money, plan a weekly menu.**

- Make tacos on Tuesdays or pasta every Friday.
- Shop once a week for the ingredients you need.
- When hunger strikes you'll be ready.





## Find and Explore Your 4-H Project Sparks!



### Choose Your 4-H Projects

[https://www.sunflower.k-state.edu/4-h/county\\_projects/index.html](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.*



### "Explore Your Spark" Project Page

*Find examples of possible project goals, learning experiences, community service ideas, and fair exhibit ideas.*

### 4-H Project Plan

*Members are more likely to follow through and accomplish what you want in your project when you create a plan.*

<https://bookstore.ksre.ksu.edu/pubs/4H1100.pdf>



### 4-H Recognition

<https://www.kansas4-h.org/resources/awards-and-recognition/index.html>

*Achievement Pins*

*Key Award*

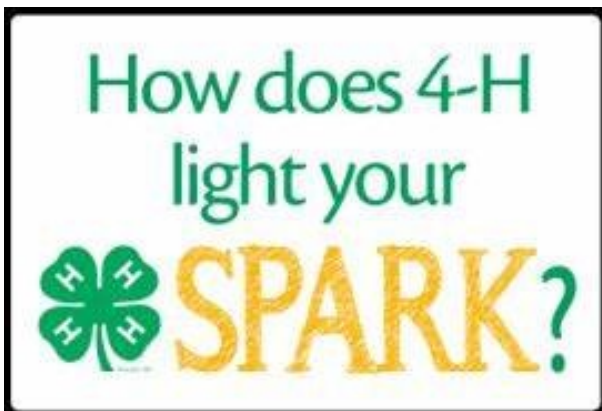
*Project Recognition*

### Record Keeping and Project Report Forms

<https://www.kansas4-h.org/resources/awards-and-recognition/ProjectRecognition.html>

*Fillable Project Report Forms*

*ZBooks Online Record Keeping*



### Contact:

Karen Nelson, 4-H Youth Development Agent  
Sunflower District—785.890.4880  
[karennelson@ksu.edu](mailto:karennelson@ksu.edu)

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# November



## Cheyenne County

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 Pleasant Hill 4-H Club Plum Creek 4-H Club	3	4	5
6 	7	8	9	10	11 Closed 	12
13	14	15	16	17	18	19
20 	21	22	23	24 Closed	25 	26
27 Go-Getters 4-H Club	28 4-H Council 6:30 pm	29	30			





## Important Dates

November 2 .....Foods  
 November 6.....Daylight Savings Time Ends  
 November 7.....JR Leader  
 November 7.....4-H Council  
 November 11.....Veterans Day / Ext. Office Closed  
 November 13.....Ruleton Eager Beavers  
 November 14.....Prairie Dale  
 November 19-21.....KS Youth Leadership Forum  
 November 20.....Achievement Awards  
 November 20.....Officers Training  
 November 21.....Country Clovers  
 November 24 - 25.....Thanksgiving / Ext. Office Closed  
 November 29.....Sherman County Match Day  
 December 1.....Returning 4-H Member Enrollment  
 Deadline [4-H Online 2.0](#)



## Sherman County Match Day November 29, 2022

### Who to donate to:

#### 4-H Council

Goodland Community Garden at  
 North School  
 Raised Garden Beds

#### Project Clubs

Shooting Sports



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



## Re-Enrollment for Returning 4-H Members

Are you a continuing  
 Sherman County 4-H Member?

Are you planning to show at the NW Kansas  
 District Free Fair in the 4-H Division?

**Re-enroll and pay the State \$15 fee by  
 December 1** each year to be eligible to show in  
 the NW Kansas District Free Fair 4-H Division!

**Pay by credit card online. Pay by check or  
 cash at the Sherman Co. Extension Office.**  
 The drop/add project deadline remains **May 1**  
 unless a project requires an earlier enrollment.

## Achievement Awards & Officers Training

The **4-H Achievement Awards** is on  
**Sunday, November 14, 2022, at 2:30 PM,**  
**at the Sherman Theatre.**

**4-H Grand Champion Jackets**  
**will also be awarded.**

**Officers Training will follow the Achievement  
 Awards and will also be at the  
 Sherman Theatre  
 (anybody is welcome to stay)**



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





# Sherman 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1.	2.  Foods 3:30 - 5:00 4-H Building	3.	4.	5.
6.  Daylight Savings Time Ends 	7.  JR Leaders 6:00 PM <u>4-H Building</u>  4-H Council 7:00 PM	8.	9.	10.	11.  Veterans Day Extension Office Closed	12.
13.  Ruleton Eager Beavers 3:00 PM 4-H Building	14.  Prairie Dale 5:30 PM 4-H Building	15.	16.	17.	18.	19.
20.  Achievement Awards 2:30 PM Sherman Theatre Officer Training will follow	21.  Country Clovers 7:00 PM 4-H Building	22.	23.	24. November 24-25 Extension Office Closed 		26.
27.	28.	29.    Match Day Donation at the Goodland Public Library	30.	  Returning 4-H Members Enrollment Deadline		





## 2022-2023 4-H Upcoming Events

- October 2-8—National 4-H Week
- October 4—4-H Record books due to office
- October 8-9— 48 Hrs. 4-H
- October 9— 4-H Sunday
- October 22-23— Kansas 4-H Dog Conference
- November 6—Achievement Program, 12:30 potluck  
4-H Council mtg
- November 19-20—Kansas Youth Leadership Forum at  
Rock Springs
- November 25-29— National 4-H Congress, Atlanta, Georgia
- February — Beef Weigh-In 8:00-10:00 a.m.
- February —Citizenship in Action (State)
- February —Kansas 4-H Ambassador Training
- March - NW Judging in Hays and Super Saturday  
In Hays
- March — County Club Days—4:00-6:00 and 6:00-8:00
- March — Regional Club Days
- April — National 4-H Congress Chevy Chase, Maryland
- April — Small Animal Weigh-In
- April — NW Youth Leadership Forum
- May —Discovery Days (State Event)
- May — Fishing Clinic (Multi-County Event)
- June — Rock Springs Camp
- June— Spring Horse Show
- June — Camperence (State Event)
- July— District Horse Show
- July 21-29— Fair Clean-up & Wallace County Fair

## Dates to Remember

### November

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

### December

- 23— Office Closed

## **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 then 10 pictures for each 4-H'er. If you have any questions please call 785-852-4285.



## **\*\*\*In the Office\*\*\***

\*State Fair ribbons are in the office and ready for pick up.


**4-H Online Enrollment opened up on October 1st. Please get on to enroll by December 1st or you will not be able to show in the 4H division at the County Fair. If there are any questions please call the Extension Office.**





# NOVEMBER 2023

## WALLACE CO.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 	2	3	4	5
6 Achievement Banquet  4-H Council Mtg	7	8	9	10	11 Office Closed Veterans Day	12
13	14	15	16	17	18	19  KS Youth Lead- ership Forum Rock Springs—
20  ----->	21	22	23	24  -Office Closed-  <i>Happy Thanksgiving</i>	25  ----National 4-H Congress----	26
27  ----National 4-H Congress----	28	29	30			





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