With the calendar rolling over into what is supposed to be cooler weather, that also means the end of the 4-H year is upon us. I am excited to learn with you through this transition, and am looking forward to the beginning of the 2023-2024 4-H year! This month’s newsletter contains important calendar dates for September, as well as information for other fall events. Happy record book season!

For those of you I haven’t yet met, hello! I grew up in Mound Valley, Kansas, and was an 11 year 4-H member. I was most active as a member on the horticulture and crops judging teams, although I also showed goats, beef cattle, and my horse, Freckles. I attended Colby Community College to ride on the equestrian team and graduated from the Farm and Ranch Management program. I then transferred to K-State as an Agricultural Education major, and completed my teaching internship at Canton-Galva High School before teaching in eastern Colorado. I love being outside, reading, and hanging out with my leopard gecko, Gregg.

**Calendar of Events**

**September**
- 9/6 Drop off for static state fair exhibits: 8am-4pm at Extension Office
- 9/8-17 Kansas State Fair
- 9/19 Static state fair exhibits pickup
- 9/29 Record books due to the office
- 9/29 4-H Ambassador Applications due
- 9/29 4-H Fair Board Applications due

**Save the Dates:**
- 10/1 Registration for State Dog Conference due to Kansas 4-H
- 10/1-8 National 4-H Week
- 10/5 4-H Council and Ambassadors Meeting
- 10/16 Registration for KYLF due to Kansas 4-H
- 10/20-22 Shooting Sports Leader Certification
- 10/21-22 State Dog Conference – Rock Springs Ranch
- 10/28 Project Panorama (and Officer Training)
- 11/5 Awards Banquet – McPherson Community Building
- 11/18-19 Kansas Youth Leadership Forum

**End of Year Financial Review**
Please remember that each 4-H Club must complete a Financial Review due by November 1st! Two youth and two adults are asked to serve on each club committee (these can not be or have relation to those listed as signers on the account). If you have any questions or need assistance please reach out to the office!

**Get Published**
Have project news or reports of fun 4-H happenings? Please email or bring in any articles to Lauralee at Lhelm@ksu.edu by September 22 to get them into the Clover Corner!
**4-H Week**

October 1st-7th is National 4-H Week! What a perfect opportunity to celebrate all the great opportunities offered through 4-H. How will you spread the word? Consider a promotional display in your community, or inviting a friend to join 4-H. Keep an eye on your inbox for details about the display contests!

**4-H Council and Ambassadors**

The next 4-H council meeting will be on October 5th at 7pm, with the Ambassador group meeting at the conclusion of the council meeting. We’ll be electing council officers and preparing for Awards Banquet, so please plan to attend!

---

**Project Panorama (and Officer Training):**

**Location TBA**

Do you have a project you think everyone should try? Are you looking for a new project to try out? Mark your calendars for Project Panorama on October 28th in Salina! Project Panorama is an event to introduce project ideas to those who are looking for new ways to participate in 4-H. Exhibiting members should create a hands-on way for participants to experience their project (see examples below). In addition, Project Panorama will have the opportunity to host tailgate service projects.

We’ll start the afternoon with leadership sessions for all participants, then transition into sessions for Officer Training. Those who are not training for a specific office (including adults!) will have their own sessions to learn about 4-H necessities such as parliamentary procedures or record books. We encourage all members to participate, so keep an eye out for registration!

**Interactive Display Examples:**

- Home environment booth: bring paint swatches for participants to design a color scheme
- Wildlife: bring samples of animal tracks for participants to identify
- Place settings: bring pictures of plates, silverware, etc., for participants to select a setting.
- Tailgate Service: bring supplies to make Valentine’s day cards to be donated to a children’s hospital

---

**48 Hours of 4-H**

The conclusion of 4-H week brings an exciting opportunity to give back to your community – alongside other 4-H members all across the nation. 48 Hours of 4-H is a movement emphasizing the importance of community service to 4-Hers. Consider putting together a community service project with your club, co-serving with another club, or finding an individual project! Kansas 4-H also collects information about service projects to log ways that members are giving back, so be sure to register your service through Kansas 4-H: [https://kstate.qualtrics.com/jfe/form/SV_5hZDZzkSLVtoREi](https://kstate.qualtrics.com/jfe/form/SV_5hZDZzkSLVtoREi) (also found on Kansas 4-H site)
What do I need for a completed Record Book?

1. Personal Information Page
2. Kansas 4-H Project Report (s) - (one report per project)
3. Permanent Record

These forms will be turned into the office in a three ring notebook. You must complete the project record sheet for at least one project, though we encourage you to complete for all of your completed projects. Dividers will be helpful for the notebook with multiple projects in one book.

Where do I find these forms?

All forms can be found online! www.mcpherson.ksu.edu, 4-H Youth Development, Awards and Recognition. There are then links for Pin Applications, Record Books and Other Awards.

Which Project Report Form do I use?

The Animal Project Report Form will be used for Horse, Poultry, Rabbits, Beef, Sheep, Swine, Meat Goat and Dairy. All other projects (including Pets/cat and Dog will use the General Project Report Form. Then just find your age! McPherson County forms will be age 7-9, 10-12 and 13-18. (Note: these ages differ from state, please follow the McPherson County age guidelines).

How do I complete the forms?

There are two ways to complete the record forms- with the PDF fillable forms or NEW THIS YEAR with the online platform Zbooks.

PDF Forms- It is recommended (especially for Intermediate and Seniors) that you type the forms, though hand written is acceptable. You must have the most current edition of Adobe Acrobat DC (FREE!) downloaded to your computer prior to beginning. Save each PDF form to your device and then you can edit, save and print as needed.

Zbooks- Create a family and user profile here: https://4h.zsuite.org/ There is helpful info on the county website. These forms will be printed when finished and turned in just like you would the PDF forms.

When are these forms due?

All record books, pin applications, special award applications and club summaries are due to the office on September 30. Club leaders must review and sign books and forms prior to this date, so check with them for their deadline!

What is a Pin Application?

Achievement Pins are a yearly goal of accomplishments and activities to complete. There are 9 achievement pins to take you through your 4-H career. Don’t worry- if you haven’t received any yet or feel ahead or behind- there is no such thing. We can all work at our pace and there are options for you- reach out to Lindsey! You will find the pin applications at the Awards and Recognition Website under Pin Applications. Make sure to read carefully and mark ALL possible accomplishments. Your club leader must also sign these prior to Sept 30.

The 4-H Permanent Record

The 4-H Permanent Record is a complete compilation of a 4-H member’s activities, both 4-H and non-4-H. This record grows with the 4-H member, as you add on to it year after year. An up to date Permanent Record can be helpful with many award and scholarship applications. This record is available as a fillable Microsoft Word document. Additional lines are available as needed.
September means fall is on its way with the start of fall harvest and fall planting and hopefully cooler temperatures. School is back in full swing with school activities, Friday night football, and the Kansas State Fair. I hope all of you can take a day off your busy schedule and visit this year’s fair in Hutch. We are very fortunate to be just a county away from one of Kansas’s biggest attractions, that has something for everyone. In the Agriculture field, this means working long hours and spending a lot of time driving between jobs or fields on dirt roads. Take extra precaution this fall at intersections especially where vision is blocked. Many farmers will be hauling grain and big equipment down the dusty roads, so giving them a little extra room and making sure everyone stays safe is the best practice. Always know if you have specific Ag questions, you can reach me during business hours here at the extension office.

Check herbicide labels before using soybeans for livestock feed

Drought conditions and extreme heat throughout Kansas are forcing farmers to consider harvesting soybeans for forage, rather than grain. Many factors should be considered when making this decision and some are discussed in a companion article in this Agronomy eUpdate, Drought and heat stress in Kansas soybean fields. Herbicide applications made during the growing season are an additional concern that has been raised by farmers. The herbicide label is the law, and many herbicide labels do restrict the use of soybeans as a forage. It will be critical to know the waiting period that must be followed between the application of a given herbicide and the grazing or harvesting of the soybeans for use as a forage.

Call the Extension office today to get the summarized statements related to feeding soybeans.

Nitrate toxicity in drought-stressed corn and sorghum

Drought-stressed crops such as corn and sorghum tend to accumulate high nitrate levels in the lower leaves and stalk of the plant (Figure 1). Nitrates accumulate in the lower portion of these plants when stresses reduce crop yields to less than expected, based on the supplied nitrogen fertility level. Nitrate toxicity in livestock is because of its absorption into the bloodstream and binding to hemoglobin, rendering it unable to carry oxygen throughout the body. The result eventual asphyxiation and death.

Figure 1. Drought-stressed forage sorghum. Photos by Dorivar Ruiz Diaz and John Holman, K-State Research and Extension.

Forage testing

It is wise for producers to test their drought-stricken forage prior to harvest. Levels of nitrates can increase in drought-stressed plants after a rain and delaying harvest may be beneficial. Nitrate testing can be done through several labs, including the K-State Soil Testing Laboratory. Harvesting the forage 6-to-12 inches above the ground to avoid the highest concentrations of nitrate in the plant is a good practice. Producers should collect a good representative forage sample above this cutting height to get an accurate determination of the nitrate concentration. Factors to consider in setting the harvest height would include actual nitrate concentration, storing and feeding methods, and forage availability. Toxicity is related to the total amount of nitrate in the diet (including water) and how quickly it is eaten, but, generally, if forages contain more than 6,000 ppm nitrate, they should be considered potentially toxic. Animals under physiological stress (sick, hungry, lactating, or pregnant) are more susceptible to nitrate toxicity than healthy animals.

Management options

1. Grinding and mixing with other forages to dilute the total nitrates in diet.
2. Forages chopped for silage and properly ensiled are a safer option, during the ensiling process, potentially 50 % of the nitrates in the forage will be metabolized by microbes and can reduce the risk of poisoning.
3. Grazing High nitrates forages can be a dangerous practice. If grazed, pressure should be limited so animals only eat leaves and top part of plant. The longer you leave animals in the field more likely to consume bottom part of plant where nitrates are high.
Wheat streak mosaic virus: Early control of volunteer is crucial
Wheat streak mosaic virus could be problematic this coming season, with rainfall encouraging volunteer development in parts of Kansas. One of the best preventative measures for wheat streak is the control of volunteer wheat early and often after harvest. If volunteer wheat is allowed to stand, it creates a “green bridge”, allowing wheat streak mosaic and wheat curl mites to survive locally. Volunteer wheat should be terminated at least two weeks prior to planting to allow sufficient time for mites to die off. Growers should be mindful of volunteer wheat that may “hide” in double-cropped soybeans or cover crops.

Figure 1. Volunteer wheat that has emerged in wheat residue.
Photo by Sarah Lancaster, K-State Research and Extension.

Breaking the “green bridge”
Wheat curl mites will move off growing wheat as the green tissue dries down and dies. After moving off the existing wheat at or near harvest time, the mites need to find green tissue of a suitable host soon or they will die (death of the whole population will take approximately 2 weeks).
Producers often like to wait several weeks after harvest before making their first herbicide application to control volunteer wheat. This allows as much volunteer as possible to emerge before spraying it or tilling it the first time. Glyphosate and atrazine are two herbicides that are often used for this purpose. Often, a second application or tillage operation will be needed later in the summer to eliminate the green bridge to fall-planted wheat by making sure all volunteer is dead within ½ mile of wheat being planted in the fall. Wet weather through late summer often favors multiple flushes of volunteer wheat and also favors the growth of other grassy weeds that can also support moderate populations of the curl mites and virus.

Other hosts for the wheat curl mite
Volunteer wheat is not the only host of the wheat curl mite. Over the years, multiple research studies have evaluated the suitability of wild grasses as hosts for both the curl mite and the wheat streak virus. There is a considerable range in the ability of a grassy weed species to host the mite and the virus. Barnyard grass is among the more suitable hosts for both virus and mites, but fortunately, it is not that common in wheat fields. In contrast, various foxtails, although rather poor hosts, could be important disease reservoirs simply because of their abundance. These grasses may play an important role in allowing the mites and virus to survive during the summer months, particularly in the absence of volunteer wheat.
The K-State Research and Extension publication, MF3383 - Wheat Streak Mosaic, includes information about grassy weed hosts of the mite and virus, and the contribution of these hosts to the risk of severe wheat streak mosaic infections. Take note of significant stands of these grasses in marginal areas and control them as you would volunteer wheat.
If volunteer wheat and other hosts are not controlled throughout the summer and become infested with wheat curl mites, the mites will survive until fall and could infest newly planted wheat. Wheat curl mite infestations of wheat often lead to wheat streak mosaic infections.

Planning your wheat fertility program:

Start now by soil testing.
Wheat planting is just a month or so away in parts of Kansas, so now is the time to get your soil sampling done to have good information on which to base your fertilizer inputs. This is particularly important after drought and lower-than-expected yields for the previous crops in parts of the state.

Which nutrients should be tested?
The most important tests and nutrients to focus on this year depend in part on where you are located, the choices you make when applying N, and your tillage system. The nutrients for which wheat is most likely to show responses statewide are nitrogen (N) and phosphorus (P). Wheat is the most P-responsive crop we grow in Kansas, and while P removal with wheat may be less than with corn or soybeans, the relative yield response is often the highest. Therefore, knowledge of P soil test levels and fertilizer needs will be valuable. In addition, low soil pH is becoming a problem, especially in fields with a history of high rates of N application and relatively low cation exchange capacity.
In addition to the “Big 3” (pH, N, and P), potassium (K) deficiency in wheat can also be found in some areas of southeast and south central Kansas. Wheat is generally less prone to K deficiency than many of the rotation crops commonly grown, such as corn, soybeans, or grain sorghum. Generally, the focus of a K fertilization program is on the rotation crops, and meeting the higher K needs of corn and soybeans minimizes the chance of a K deficiency in wheat.
The 0-6 inch soil sample: Non-mobile nutrients and pH
A standard 0-6 inch surface sample is normally used to test for pH and the non-mobile nutrients such as P and K. Phosphorus and K are buffered processes in our Kansas soils. This simply means that the soil contains significant quantities of these nutrients and the soil tests we commonly use provide an index value of the amounts available to the plant, not a true quantitative measure of the amounts present. In the case of P, most Kansas soils require about 18 pounds of P2O5 to increase 1 ppm in soil test P; for K is around 8 pounds of K2O to increase 1 ppm K soil test.

The buffering value for both P and K varies based on soil cation exchange capacity (CEC) and the soil test levels. On high CEC soils, especially those soils with high clay content, the buffering capacity goes up, so the soil test levels will change more slowly. However, on low CEC soils, the buffering capacity can be much lower, and soil test levels can change rapidly. The same situation occurs with soil test levels. On soils with low soil test phosphorus or potassium levels, it will require more P or K to raise the soil test than at high soil test levels.

In addition to requesting the standard soil tests of pH, P, and K from the 0-6 inch surface sample, producers might also want to monitor soil organic matter levels and micronutrients such as zinc (Zn). Zinc is not a nutrient commonly found deficient in wheat production. However, it is important for corn and grain sorghum. Thus including it in your sample package would be helpful for planning for these rotation crops.

Soil organic matter (SOM) is an important source of nutrients such as N and sulfur (S). When calculating the fertilizer needs for both these nutrients, SOM is taken into consideration. For wheat production, 10 pounds of available N and 2.5 pounds of S are credited for every 1% SOM in the soil.

Sulfur deficiency is increasing across the state in wheat production also. There are two primary causes: the reduction in sulfur deposition from the atmosphere seen over the past 2-3 decades, and the reduction in S content in many P fertilizers. While not as soluble as nitrate, S is also a relatively mobile nutrient that accumulates in the subsoil. The S profile soil test is a good way to determine S needs.

Chloride (Cl) is the third essential mobile element to be considered for wheat production with profile soil testing. Chloride deficiency is normally found in the eastern half of the state on soils that do not have a history of potash (KCl) application. In general, this includes many areas in eastern Kansas, north of the Kansas River, and the central corridor of wheat production. Chloride deficiency is associated with grass crops, wheat, corn, and grain sorghum, and is correlated with the plant's ability to resist plant disease. Again, the profile soil test for chloride is well-calibrated in Kansas and should be considered.

The 0-24 inch soil sample: Mobile nutrients
In addition to pH, SOM, P, K, and Zn -- all of which are non-mobile in soils and accumulate in the surface -- the mobile nutrients N, S, and chloride can provide significant yield responses when deficient in soils. Since all three of these nutrients are mobile in soils and tend to accumulate in the subsoil, we strongly recommend the use of a 24-inch profile soil sample prior to growing wheat, corn, or grain sorghum. Nitrogen is a nutrient likely to provide yield response statewide. One common misconception is that the accumulation of N in the soil profile only occurs in the drier, western half of the state. However, with our dry winters, N can accumulate in the soil statewide. Rainfall tends to peak in Kansas in June and July, with a rapid decrease in monthly precipitation in the fall. Rainfall totals are generally lowest in December and January. Wheat takes up the majority of its N prior to flowering. In southeast Kansas that is in April, and in north central Kansas it is in early May most years.

In some years, especially following this year following recent dry conditions, significant amounts of N can be present in soils at wheat planting. On the other hand, after good yields, the residual N levels may be lower than the commonly used “default” value, and N fertilizer rates would need to be adjusted accordingly. Don’t miss the companion article in this issue on the correlation between the amount of nitrate in the soil profile and wheat yield.

Summary:
In summary, wheat producers in Kansas should consider soil testing to help in making accurate fertilizer decisions. Accurate decisions are especially important during years with low grain prices and tight budgets. Furthermore, after variable conditions and yield levels across the state, fertilizer needs may require adjustments based on soil tests. Wheat producers specifically, should use surface 0-6 inch samples to determine the need for lime on low pH soils, P, K, Zn, and soil organic matter. They also should be using 24-inch profile soil tests for N, S, and Cl. Now is the time to get those samples taken, to ensure there will be enough time to consider those test results when planning your fall fertilizer programs.
September Garden Calendar

Vegetables and Fruits:
- Continue to harvest vegetables
- Pick apples and pears and store in a cool place to extend freshness
- Harvest pumpkins when flesh is completely orange and avoid carrying by stem
- Harvest winter squash when rind is hard enough to puncture with fingernail
- Plant lettuce, spinach, and radishes
- Remove weeds from garden plantings before going to seed
- Herbs can be dug from garden and placed in pots for indoor use this winter
- Remove small tomatoes from their vines to increase late development of more mature fruits

Flowers:
- Plant spring flowering bulbs, tulips, daffodils, and others
- Dig, divide, or plant peonies
- Divide perennials, especially spring bloomers
- Remove seedheads from perennials to prevent reseeding in the garden
- Plant chrysanthemums for fall color
- Dig gladiolus as foliage begins to yellow and air dry before storing for winter
- Clean up garden areas to reduce insects and disease as plants dieback for winter
- Enrich soil by adding organic matter such as peat moss or compost

Lawns:
- Plant or sod new bluegrass or tall fescue lawns
- Renovate bluegrass or tall fescue lawns by verticutting
- Core aerate cool season turf
- Fertilize cool season grasses with high nitrogen sources of fertilizer
- Mow turf at 2 to 3 inches and sharpen blade for a clean cut

Trees and Shrubs:
- Plant trees and shrubs, deciduous and evergreen
- Rake up fallen leaves and compost
- Prune broken and dead branches from trees
- Avoid pruning spring flowering shrubs such as lilac and forsythia to ensure spring flowers
- Hand pick bagworms to reduce problem in future

Houseplants:
- Bring plants in before temperatures drop into the fifties
- Clean and wash before moving indoors to reduce insects
- Fertilize before winter conditions arrive and growth slows
- Poinsettias can be forced into Christmas bloom by starting dark treatment of short days
Teach & Taste – Pizza Boats

Bring the family as we celebrate National Kids Take Over the Kitchen Day with our September recipe of the month, Pizza Boats! This hands-on experience will provide fun and education for this tasty recipe.

Mark your calendar now for September 13, 2023 at 6:30pm at the Extension Office for our feature recipe Pizza Boats.

PLEASE RSVP TO ENSURE WE HAVE ENOUGH FOR EVERYONE.

Use the link below to register and come join us and try out a new recipe.

This recipe is:
- Gluten Free (option available)
- Vegetarian (option available)

http://tinyurl.com/TeachandTasteSeptember

Reimagine Canton Committee Work Begins

The work of reimagining a thriving and prosperous community has begun in the city of Canton. Committee work has begun with 3 of the 6 defined committees having completed their kick-off. Want to be a part of one of the committees but feel you have missed out already? Not the case, the invitation is out for anyone that wants to be involved. The 6 identified committees are Community Engagement, Economic Development, Housing, Infrastructure, Parks & Recreation/Beautification, and Preservation. We welcome input as the strategic plan is taking shape for the future of Canton. There is still an opportunity to join in this endeavor so if you would like to participate in one of the committees, please contact clauglin@ksu.edu.

Updates on the status of the program, committee meetings, community-wide meetings, and other general information will be shared via the newly created Facebook page. Please use the link or QR code to visit and Like the Reimagine Canton Facebook page.

https://www.facebook.com/profile.php?id=61550514969391&mibextid=LQQJ4d

Setup Smart Phone Emergency Medical Information & Contact Information in Case of Emergency

Ever thought about what happens in case of emergency and you are somehow incapacitated? A Medical ID on your smartphone provides information about you to first responders in the event of an emergency, like allergies, medical conditions, and your emergency contacts. Your iPhone, Apple Watch, or Android phone can display this information so that it’s available for someone attending to you in an emergency and your emergency contacts can be notified if you use Emergency SOS via satellite. See the basic instructions and link to additional information below to set up this potential lifesaving feature on your smart phone for iPhone or Android devices.
How to set up your Medical ID:
1. Open the Health app and tap the Summary tab.
2. Tap your profile picture in the upper-right corner.
3. Under your profile picture, tap Medical ID.
4. Tap Edit in the upper-right corner.
5. To make your Medical ID available from the Lock screen on your iPhone, turn on Show When Locked. In an emergency, this gives information to people who want to help. To share your Medical ID with emergency responders, turn on Share During Emergency Call. When you make a call or send a text to emergency services on your iPhone or Apple Watch, your Medical ID will automatically be shared with emergency services.*
6. Enter health information like your date of birth, allergies, and blood type.
7. Tap Done.
Additional Information: https://support.apple.com/en-us/HT207021

iPhone instructions

Add emergency contacts:
1. Open the Health app and tap your profile picture.
2. Tap Medical ID.
3. Tap Edit, then scroll to Emergency Contacts.
4. Tap the Add button to add an emergency contact.
5. Tap a contact, then add their relationship.
6. Tap Done to save your changes.

You can’t set emergency services as an SOS contact.

Andriod instructions

Add emergency contacts:
Activating Emergency SOS requires you to save at least one emergency contact to your phone. You'll need to do this before anything else.
1. Open the Settings app.
2. Scroll down and tap Safety & emergency. This menu can be found in the Advanced Settings menu on earlier versions of Android (Android 11 and earlier).
3. Tap Emergency contacts.
4. Tap Add contact.
5. Select emergency contacts from your contact list. If you wish to add someone who isn’t on your contacts list, add them through the Contacts app first.

Add medical information to your lock screen:
It's also possible to add medical information such as your blood type, allergies, and medication to your lock screen for easy access by emergency workers. Anyone can see this information without unlocking your phone, so don’t add it if you’re uncomfortable sharing this information.
1. From the Safety & emergency menu, tap Medical Information. Medical Information is called Emergency Information in some versions of Android.
2. Tap any of the options to enter your information.
Additional Information: https://www.androidpolice.com/how-to-set-up-emergency-sos-features-on-android/

Friday, October 6 at 9:30am to 10:30am
First Friday e-Call- Trails: How Can Business Owners Help Create Trail Towns?
Jeff Caroll, Owner, Ottawa Bike and Trail, will tell what he has learned about what bikers need in order to come to your trail.
Registration link: https://www.ksre.ks-state.edu/community/business/entrepreneurship/#sign_up

County Connection E-News
To register to receive updates on upcoming events, calendar updates, webinars, senior and military discounts available, county resource phone numbers, as well as tips and tricks to make life easier.

County Connection Sign-Up
http://eepurl.com/llcSFn