Happy Fall and one month into the new 4-H year! Please remember to enroll by November 15! (See extra incentives below!) Now is a perfect time to invite a friend to see what 4-H is all about and to set goals (and write them down for your record books!) about 4-H projects! If you have ideas for the new 4-H year that you would like to see in the County, visit with Lindsey or your clubs Council Rep and have them bring it to the next council meeting! If you were unable to attend officer training on October 23, please let me know if you would like an officer guidebook printed.

~Lindsey

4-H Enrollment

It's time to ENROLL!!! Please remember that all enrollment will be done online again this year, on 4-H Online 2.0! Please log in at http://V2.4honline.com You will use the same email and password as previous years. If you are enrolled by November 15, your 4-H program fee will be covered by the McPherson County 4-H Development Fund!!! The 4-H Development Fund will also be purchasing curriculum materials for each enrolled member. To take advantage of this, please enroll and email Lindsey your choices (up to 2 curriculum books) by November 15! Visit www.shop4-h.org to search for your curriculum choices!

November Dates

* November 3 - Deadline to RSVP for Achievement Celebration tickets
* November 7 - 4-H Achievement Celebration (4 PM, P & M Pumpkin Ranch)
* November 11 - Office Closed
* November 11 - Bring Your 4-H Projects to LIFE! Health & Wellness- Kineseology (7 PM, ZOOM)
* November 20-21 - KYLF - Leadership weekend, Rock Springs Ranch
* November 25-26 - Office Closed

Newsletter Deadline

Please get Lindsey all of your information (happenings, news, project meeting opportunities) to be published in the December/January Clover Corner Newsletter no later than Nov. 19. Email information to LMueling@ksu.edu or bring to the office.
Achievement Celebration & Fall Fun!

Come celebrate the 2020-2021 4-H Year! We will meet at P&M Pumpkin Ranch on November 7. All 4-H members and parents will receive a free admission ticket (valid 10 am-7 pm). At 4:00 pm we will come together to celebrate the year with awards, memories and cookies! This will be in the pumpkin patch at the campfire sites- please bring lawn chairs! Those 4-H members who completed record books will also receive a special treat of $10 in concession and activity tickets! Make sure to RSVP to the Extension Office no later than Wednesday, November 3!

4-H Council

The next 4-H Council meeting will be on December 2, 2021. Note that 4-H Council will be meeting on the 1st Thursday of December, February, April, June, August and October. Leaders - please turn in your council representatives ASAP if you haven’t already! Congratulations to the 2021 Council Officers:

Ellie Seeger - President
Mason OBrien - Vice President
Karly Durr - Secretary
Cyrus Blough - Treasurer
Mia Bower & Colbie Shogren- Hosts

Thank you to your dedication to McPherson County 4-H!

County-Wide Events

Officer’s Training, 4-H Day, Fun Nights… the list goes on! McPherson County 4-H needs YOU to help plan these events! What do you want to see done, what would be an exciting activity to add? Each county activity has a committee to help plan and run the event. EVERYONE is invited to participate on at least one committee; you do not need to be a 4-H Council member. Please talk to your club leader or the Extension Office for more information. Preference forms for committees are due December 1, 2021.

4-H Fair Theme

Time to take ownership in our 4-H Fair Theme! There will again be a contest to determine the theme for 2022. Here are the details:

--- Each club will submit one theme to the Extension Office by Feb 1.
--- 4-H Council will decide on the top 3 themes
--- Each 4-H member can vote on their favorite theme at 4-H Club Day!

Leadership Weekend Registration is Open!

Kansas 4-H Leadership Weekend is open! The theme this year is Leadership is Timeless.

The Forums will be held November 20-21, 2021, at Rock Springs 4-H Center. KYLF is for youth ages 14-18 before January 1, 2022, and KVF is for all Kansas 4-H Volunteers. KYLF will feature leadership workshops, small groups, a speaker and opportunities to learn and have fun. The Kansas 4-H Volunteer forum will feature workshops and information to help volunteers be more effective and learn from each other.

Again this year participants in both forums will register though the same system. Registration deadline is November 4, 2021, for both events, register at https://tinyurl.com/4HLeadershipWeekend If you are an adult willing to attend the Volunteer Forum as a McPherson chaperone at a discounted rate, please reach out to Lindsey ASAP!
Bring Your 4-H Projects to Life!

We are looking forward to another year of Bring Your 4-H Projects to Life! These will be held on the second Thursday of each month at 7 PM on Zoom! They will focus on a different project area each month and you do not have to be currently enrolled in any specific project to attend and learn with us! We try to record each session for schedule conflicts as well, but please register! Our next date will be Thursday, November 11 where we will explore the Health and Wellness project with the Kineseology Department at Kansas State University! Watch your email and Facebook for a registration link coming soon!

Club Highlights!

The Santa Fe Sunflowers Club hosted a 4-H Preview Night on October 10! Club members and interested youth decorated pumpkins and cupcakes, learned about robotics and did a quilt tying service project! What a great way to promote and share 4-H with others!

Mitten Tree

4-Her's are encouraged to bring cold weather items (coats, hats, scarves, gloves, socks, or monetary gifts) to Home State Bank and Trust's Community Mitten Tree between Thanksgiving and Christmas. The tree will be located in the lobby at their Main and Euclid location. Donations can also be dropped off at the Extension Office. The items will be distributed to all the elementary schools in McPherson County.
McPherson County has a long history of Master Farmer/Master Farm Homemakers and I hope each year, McPherson County can add to this tradition. Please help me in recognizing a local family that fits into the category of Master Farmer/Master Farm Homemaker. Nominations are due November 22, 2021.

The Kansas Master Farmer program was started some 94 years ago in 1926, and continues today. Over the years, more than 400 families have been recognized, honored, and become members of the Kansas Master Farmer Association and the Kansas Master Farm Homemakers Guild. While this is statewide recognition, it truly represents a way of expressing recognition locally for those farm families who have shown great support and excellence in community and success in their farm/ranch operations. No better way to demonstrate the value of extension, and in many cases, 4-H leadership locally.

Don’t miss the chance to nominate a deserving farm family from your community for statewide recognition. This K-State Research and Extension Program is co-sponsored with the Kansas Farmer magazine, and is provided excellent financial support by Kansas Farm Bureau, Frontier Farm Credit and American AgCredit.

If you have questions, contact Shad Marston, smarston@ksu.edu, 620-241-1523.
Management Adjustments When Sowing Wheat Late

According to the most recent USDA report released on October 18, about 75% of Kansas wheat has been planted this fall, which is above the 5-yr average of 68%. However, some producers may have delayed planting for different reasons, including harvesting a summer crop during late October or, especially during this growing season, dry soils and waiting for significant precipitation to occur. Planting wheat in late October-early November is within the acceptable range in southeast and far south-central Kansas. In other areas of the state, this is later than desirable, and later than the cutoff date for full crop insurance benefits. Although good yields may still be reached when wheat is planted outside the optimal planting window, late-planted wheat is often subjected to colder fall temperatures and has less time to tiller prior to winter dormancy, which can reduce wheat yield potential and increase the risks of winter injury. Under these circumstances, some management adjustments can be made to try to compensate for the consequences of late planting.

These adjustments include: Increase seeding rate

Late-planted wheat tends to produce fewer tillers during the fall than wheat planted at the optimal time. Fall tillers are generally more productive than spring tillers, contributing more to the crop’s yield potential. Therefore, there is a need to compensate for the reduced tillering by increasing seeding rates. Wheat seeding rates for Kansas vary depending on the precipitation zone, and increase from west to east (Table 1). Likewise, every week planting is delayed from the end of the range of optimal planting date, seeding rates should be increased by about 150,000–225,000 seeds per acre (or 10 to 15 lb/acre) in western Kansas, or 225,000–300,000 seeds per acre (15–20 lb/acre) in eastern Kansas. Final seeding rate should not be above 90-100 pounds per acre in western Kansas and 120-130 pounds in eastern and central Kansas for grain-only wheat production, as extremely high seeding rates can increase the potential for lodging.

<table>
<thead>
<tr>
<th>Region Within Kansas</th>
<th>Seeding rate for grain-only wheat production, assuming optimum planting date</th>
<th>seeds/acre</th>
<th>seeds/sq.ft.*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min.</td>
<td>Max.</td>
<td>Min.</td>
</tr>
<tr>
<td>Western</td>
<td>750,000</td>
<td>900,000</td>
<td>17</td>
</tr>
<tr>
<td>Central</td>
<td>900,000</td>
<td>1,125,000</td>
<td>21</td>
</tr>
<tr>
<td>Eastern</td>
<td>1,125,000</td>
<td>1,350,000</td>
<td>26</td>
</tr>
<tr>
<td>Irrigated</td>
<td>1,200,000</td>
<td>1,500,000</td>
<td>28</td>
</tr>
</tbody>
</table>

*To determine row length needed for one square foot based on row spacing, divide 12 by the row spacing of your field. For example, if row spacing is 7.5 inches, 12/7.5 = 1.6 feet, or 19.2 inches of row are needed to be equivalent to one square foot.

Maintain the optimal planting depth (1 to 1.5 inch deep)

Wheat needs at least 4-5 leaves and 1-2 tillers prior to winter dormancy for maximum cold tolerance. Late-planted wheat will most likely have fewer tillers and leaves than wheat planted at the optimal timing, and therefore will be more susceptible to winter kill. It is important to plant wheat at the normal planting depth (1 to 1.5 inches below the soil surface) to ensure good root development and anchorage, as well as good crown insulation by the soil during the winter, increasing the chances of winter survival. Shallow-planted wheat is at greater risk of winter injury. If the seed is placed too deeply, it may not have enough vigor in cold soils to emerge well.

Place starter phosphorus (P) fertilizer with the seed

Phosphate-based starter fertilizer promotes early-season wheat growth and tillering, which can help compensate for the delayed sowing date. Additionally, P is less available under colder soil temperatures, which can result in P deficiency under cold weather conditions. When planting late, producers should strongly consider using about 20-30 lbs/acre of P fertilizer directly with the seed, regardless of soil P levels. This placement method is more effective at that time of year than other application methods. The later the planting date, the more fall root development is slowed. The closer the fertilizer is to the seed, the sooner the plant roots can get to it.

Use fungicide seed treatment or plant certified seed

Late-planted wheat is sown into colder soils, which generally increases the time needed for germination and emergence to occur. As a consequence, there is increased potential for seed and soil-borne diseases that affect seedlings and early-season wheat development. Fungicide seed treatment can protect the seed and seedling during the extended time it is subjected to potential seedling diseases, improving stand establishment under poor growing conditions. It is important that the seed treatment thoroughly coat the seeds to ensure good protection. For fungicide seed treatment options, please refer to the most current version of K-State fungicide seed treatment chart available at: https://www.bookstore.ksre.ksu.edu/pubs/MF2955.pdf

Variety selection

It is probably too late to make any changes as far as which wheat variety to plant this fall. However, a few points to consider when it is known that wheat will be planted late (e.g. when planning to sow wheat following soybeans) are tillering ability and maturity. A variety that has good tillering ability may offset some of the consequences of late planting, as it might still be able to produce one or two tillers during the fall whereas a low-tillering variety may produce none. Also, late-planted wheat is typically behind in development going into the winter, which might translate into slower development in the spring. This delay can result in plants being exposed to moisture stress and especially heat stress during grain filling, reducing the duration of the grain filling period. Thus, selecting an early-maturity variety with good yield potential may offset to some extent the consequences of late planting by decreasing the chances of a grain filling period subjected to warmer temperatures.
Replanting Decisions For Winter Wheat

As wheat growers evaluate their wheat stand, some may be considering replanting fields yet this fall. The potential causes of poor or uneven emergence or stand establishment are many and may differ from field to field. For example, many growers reported severe army worm infestation this fall, which may have led to poor wheat stand establishment. Likewise, lack of precipitation was detrimental to wheat germination in parts of the state during most of September, and to other parts of the state during part of October. If dry soils are the cause of the problem, replanting will not bring many benefits unless the seed has partially germinated and perished before emerging. It is very important to dig into the soil and evaluate the seed to determine the cause of poor emergence. Wheat seeds may still be germinating and emergence may occur in the next few days, depending on temperatures. Thus, if seed are still hard and viable, or if germination started to occur recently and there are very short coleoptile emerging from the seed (Figure 1), the best advice is to leave the field alone.

**When deciding whether to replant wheat fields it is helpful to consider these factors:** stand uniformity, percent stand compared to the target stand, replanting date, weed control, and insurance cutoff date.

**Stand uniformity**

In fields in which topsoil moisture was variable at time of planting, some seeds might have germinated and emerged where soil moisture was sufficient, while others might have started the germination process but perished where soil moisture was too low, while others might not have started the germination process at all. This will cause poor wheat emergence across the field, with sometimes recognizable field patterns associated with the moisture distribution in the soil. In this case, stands might be relatively uniform in poorer-drained areas where moisture might have accumulated, but non-existent in better-drained areas, leading to a high within-field variability. In this case, growers should check for seed viability in areas with poor emergence. If the seed is still viable, then the field should be left alone. If the seeds imbibed water, started to germinate but perished, then these portions of the field should have top-priority for replanting. If a stand is sparse in areas that already emerged, producers should also consider replanting these areas with lower seeding rates to bring final population closer to the desired stand, as discussed below.

**Percent stand compared to the goal**

In areas with suboptimal and thinner stands than desired, counting the number of emerged plants per row foot and comparing the observed stand to target populations (Table 1) is a good place to start.

The target number of plants per row foot (Table 1) is influenced by seeding rate, seed size, and row spacing, and considering 80% emergence. If seed size is not known, 14,000 to 16,000 seeds per pound can be used for most wheat varieties in Kansas, except those with rather large or small kernels. To determine the average number of plants per foot of row, several random plant counts across the field should be taken, given a more or less uniform emergence throughout the field. If the average number of plants is about 50 percent of normal and the stand is evenly distributed, the recommendation is to keep the stand. Wheat’s tillering ability can greatly compensate for poor stand provided soil fertility is adequate and the weather is favorable. With less than 40 percent of normal stand, or if germination started to occur recently and there are very short coleoptile emerging from the seed (Figure 1), the best advice is to leave the field alone.

<table>
<thead>
<tr>
<th>Seeding Rate (b/ac)</th>
<th>Seed Size (seeds/lb)</th>
<th>Target plants per row foot (80% emergence) (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>12,000</td>
<td>6  7  8  10  12</td>
</tr>
<tr>
<td></td>
<td>14,000</td>
<td>5  6  7  8  10</td>
</tr>
<tr>
<td></td>
<td>16,000</td>
<td>6  7  8  9  11</td>
</tr>
<tr>
<td>60</td>
<td>12,000</td>
<td>7  8  9  11  13</td>
</tr>
<tr>
<td></td>
<td>14,000</td>
<td>8  9  10  12  15</td>
</tr>
<tr>
<td></td>
<td>16,000</td>
<td>9  11 12  15  18</td>
</tr>
<tr>
<td></td>
<td>18,000</td>
<td>10 12 13  17  20</td>
</tr>
<tr>
<td>75</td>
<td>12,000</td>
<td>8  10 11  14  17</td>
</tr>
<tr>
<td></td>
<td>14,000</td>
<td>10 12 13  16  19</td>
</tr>
<tr>
<td></td>
<td>16,000</td>
<td>11 14 15  18  22</td>
</tr>
<tr>
<td></td>
<td>18,000</td>
<td>12 15 17  21  25</td>
</tr>
<tr>
<td>90</td>
<td>12,000</td>
<td>10 12 13  17  20</td>
</tr>
<tr>
<td></td>
<td>14,000</td>
<td>12 14 15  19  23</td>
</tr>
</tbody>
</table>

**Replanting date and seeding rate**

As of late October, most of the state has passed the optimum sowing date, with maybe the exception of south-central or southeast Kansas. For portions of the field with no established stand (the entire stand will need to be replanted), producers should plan to increase their seeding rates by 10-15% for every week past the optimum sowing date.

In areas where a partial stand was achieved but for a total of about 50% stand, or parts of the field that did not emerge evenly, or that the seedlings have perished after planting, producers should make the decision about replanting immediately to avoid further compromising the yield potential.

In portions of the field where stand is below optimum, producers can cross-drill at the rate of 30-40 pounds per acre in western Kansas and 40-60 pounds per acre in central and eastern Kansas, using a double-disc opener drill, if at all possible, to minimize damage to the existing stand. If the replanting is done in November or later, increase the seeding rates to 60-75 pounds per acre in western Kansas and 75-90 pounds per acre in central Kansas. If stands are less than 30 percent of normal, increase these seeding rates by 20-30 pounds per acre. The higher seeding rates are needed because the cool soil temperatures encountered by late planted wheat will likely slow emergence, favor seedling diseases and reduce the potential for fall tillering.
Using a fungicide seed treatment can reduce the potential for seedling disease and help achieve the target populations.

**Weed control – Pay attention to application timing**

A thin wheat stand can increase the potential for weed and grass infestations. In fields with a history of severe weed problems, the wheat stand should probably be replanted or thickened. Keep in mind that the uneven wheat stands can also influence herbicide timing due to different staging of the crop within the same field. Herbicides, such as 2,4-D and dicamba, have very specific application guidelines and attention must be paid to the herbicide label to avoid injury to the wheat crop. Paying attention to wheat leaf staging when controlling weeds can help minimize the consequences of applying these herbicides outside the labeled recommendations. Potential problems due to improper application timing include trapped heads, missing florets, or twisted awns. More-developed plants during the fall often hold the best yield potential; thus, this factor might be considered if a decision needs to be taken between risking some herbicide injury to more developed plants versus those that emerged late in uneven wheat fields.

**Insurance cut-off dates**

Finally, some producers might also consider insurance cut-off dates, as they need to ensure their crop is planted prior to this date.

For insurance purposes, crops planted before the final planting dates as specified by the USDA are insured with no reduction in coverage or adjustment to premium. The final plant date is already past for parts of western Kansas, which means that producers replanting after this date will have a reduction in 1% coverage per day until the end of the late-planting period. For wheat, the late-planting period often occurs about 15 days after the final plant date.

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**KSRE Calving School**

Thursday, January 13, 2022 – 6:00 p.m.

McPherson County 4-H Building

710 West Woodside, McPherson KS

$10.00 Steak Dinner by reservation

Call 620-241-1523 by Noon Friday, January 7 or email Terra at tregehr@ksu.edu

More details in the coming months!

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**Do Hummingbirds Feed on Insects?**

Hummingbirds feed on nectar from flowers because they cannot survive exclusively on the sugar water provided in hummingbird feeders. Consequently, hummingbirds feed on insects to obtain protein for muscle and feather development. Insects are an important source of amino acids, fats, fiber, salts, and other nutrients required for a balanced diet. Hummingbirds generally feed on insects that can be easily captured and swallowed, such as; ants, aphids, beetles, gnats, mosquitoes, and certain wasps. Hummingbirds will also eat insect larvae and eggs.

Hummingbirds can eat between several hundred to a thousand insects in one day although the number of insects consumed varies depending on insect availability, insect type, and the dietary needs of hummingbirds. Hummingbirds catch insects that are feeding on flowers, grab insects directly in the air, remove insects from spider webs, or snatch insects from the undersides of tree leaves. Hummingbirds cannot dismember their prey because of their body size and long, slender mouthparts (bills). Consequently, hummingbirds swallow insect’s whole.

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**Garden Soil Preparation**

It’s Not Too Late

Winter can still be a good time to add organic materials and till garden soils, as long as the soil isn’t frozen. It is far wiser to till now than to wait until spring when cold, wet conditions can limit your ability to work soils easily. Working soil when it is wet destroys soil structure and results in hard clods that are very slow to break down. On the other hand, dry soil may need to be watered so it can be more easily tilled. Be sure to wait several days after watering to let soil moisture levels moderate. You want the soil moist, not wet or dry, when tilling.

There is a limit to how much organic material such as leaves can be added in one application. Normally, a layer 2 inches deep is adequate with 5 to 6 inches being the maximum that can be added at one time. Shredding the material before application encourages faster and more complete decomposition due to increased surface area. Remember, soil preparation is an important key to a successful garden.

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**After the Hunt Preserving Venison**

Cool the dressed carcass to 35 to 40 degrees F as soon as possible.

Age the carcass at 40 degrees F or less to reduce game taste and tenderize the meat

Freeze meat for 3 months or less for best quality

A pressure canner must be used to safely can venison