October 2020

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

Inside Your Newsletter...

Intensifying Crop Rotations Research from Tribune

Consumer Expectations from a Beef Carcass

It’s Time To Take Action

Join the Club

2020—2021 4-H Year

Are you a continuing Sunflower District 4-H Member?
Are you a new member planning to join 4-H this year?
Do you plan to show at your county fair in the 4-H Division?

Continuing Sunflower District 4-H Members

► Re-enroll by December 1 each year on 4-H Online, choose at least one project, and pay the annual State $15 enrollment fee to be eligible to show in your county fair 4-H Division! (Cheyenne and Wallace County fees for members enrolling by December 1 will be paid with 4-H Council donations and fund raisers.)
► Update your contact e-mail/phone/address information!
► Identify all projects prior to participation in meetings or activities on 4-H online!
► Drop/add project deadline is May 1 unless a project requires earlier enrollment. (e.g. enroll in livestock projects prior to the spring weigh-in)

New Sunflower District 4-H Members

► Enroll on 4-H Online
► Choose projects
► Members may enroll at any time during the year but must enroll and pay the state enrollment fee by May 1 to participate in your county fair 4-H Division. (Cheyenne and Wallace County fees for members enrolling by December 1 will be paid with 4-H Council donations and fund raisers.)
► Identify all projects prior to participation in meetings or activities on 4-H online!
► Drop/add project deadline is May 1 unless a project requires earlier enrollment. (e.g. enroll in livestock projects prior to the spring weigh-in)

As of December 1, Extension Office reminders will only be sent to currently enrolled 4-H families.

Project information can be found at the following link:
http://www.sunflower.ksu.edu/4-h/county_projects/index.html

K-State Research and Extension is an equal opportunity provider and employer.
This study was conducted from 2008–2019 at the Kansas State University Southwest Research-Extension Center near Tribune. The complete research report with additional data is posted at www.sunflower.ksu.edu/agronomy.

The change from conventional tillage to no-tillage cropping systems has allowed for greater intensification of cropping in semi-arid regions. In the central High Plains, wheat-fallow (1 crop in 2 years) has been a popular cropping system for many decades. This system is being replaced by more intensive wheat-summer crop-fallow rotations (2 crops in 3 years). There has also been increased interest in further intensifying the cropping systems by growing 3 crops in 4 years or continuous cropping. This project evaluates several multi-crop rotations that are feasible for the region, along with alternative systems that are more intensive than 2- or 3-year rotations. The objectives are to 1) enhance and stabilize production of rainfed cropping systems using multiple crops and rotations to optimize capture and utilization of precipitation for economic crop production, and 2) enhance adoption of alternative rainfed cropping systems that provide optimal profitability.

Experimental Design

The crop rotations are 2-year (wheat-fallow [WF]); 3-year (wheat-grain sorghum-fallow [WSF] and wheat-corn-fallow [WCF]); and 4-year (wheat-corn-sorghum-fallow [WSCF] and wheat-sorghum-corn-fallow [WSCF]); and continuous sorghum [SS]. All rotations are grown using no-tillage (NT) practices except for WF, which is grown using reduced-tillage (RT). All phases of each rotation are present each year.

Plot size is a minimum of 100 × 450 ft. In most instances, grain yields were determined by harvesting the center 60 ft (by entire length) of each plot with a commercial combine and determining grain weight with a weigh-wagon or combine yield moni-tor. Soil water was measured in 12-inch increments to 96 inches near planting and after harvest either gravimetrically (RT WF) or by neutron attenuation (NT plots).

Results and Discussion

Precipitation averaged 102% of normal (17.90 in.) across the 12-yr study period and was near normal (+/- 15%) in 8 out of 12 years with three wet years (>20% above normal) and one exceptionally dry year (42% of normal). Fallow accumulation, fallow efficiency, and profile available water at wheat planting were greater with WF than other wheat rotations. The fallow efficiencies of the 3- and 4-yr NT rotations were only 54–68% of WF under RT. With more water available, crop water use was also greater with WF than with wheat in other rotations. There were no differences in available water at wheat planting or crop water use among the 3- and 4-yr rotations.

Fallow accumulation prior to corn planting and profile available soil water at planting was greater following wheat (WCF or WSCF) than following grain sorghum (WSCF). However, the fallow period following wheat was longer, resulting in low fallow efficiencies (~18%) following wheat and only 22% following sorghum. Similar to wheat, corn water use was greater with greater available soil water at planting. Grain sorghum responded similarly to corn, with greater fallow accumulation and soil water at planting (and greater crop water use) when following wheat than following corn or sorghum. Again, fallow efficiencies prior to grain sorghum were low (16–22%).

Wheat yields were greatly above normal in 2019 with yields exceeding 100 bu/a in the 3-yr rotations. The effect of cropping systems was not consistent across years, with WF sometimes in the highest yielding group and sometimes in the lowest yielding group. Averaged across the 12 years, cropping system had little effect (5 bu/a or less) on wheat yields.

Grain sorghum yields were very good in 2019 with yields greater than 100 bu/a when following wheat. Sorghum following corn produced 36 bu/a less yield than following wheat, and continuous sorghum yields were 14 bu/a greater than following corn. Average grain sorghum yields following wheat were approximately 50% greater than following corn or sorghum.

Similar to grain sorghum, corn yields were very good in 2019 with all rotations yielding 90 bu/a or more. Corn yields following wheat in either the 3- or 4-yr rotations were always greater than yields following grain sorghum, except in 2015 where corn yields following sorghum (wScf) were greater than wCf. On average, corn yields following wheat were about 45% greater than following grain sorghum.

When examining grain yields across crops, the greatest yields were produced by grain sorghum following wheat (either wSf or wScf) of >85 bu/a (Figure 5). These yields were about 45% greater than corn following wheat (wCf or wCsF). Sorghum yields following wheat were about 50% greater than sorghum following corn or sorghum (wScF or SS), while corn yields following wheat (wCf or wCsF) were about 45% greater than following sorghum.
Consumer Expectations from a Beef Carcass

It is difficult for consumers to visualize which beef cuts come from various areas of the beef carcass and what amount of their favorite cuts to expect when having a beef processed. Here we will discuss the cuts that can be produced from the primal cuts (pictured on the left) and the amount of that cut can be harvested from an industry standard beef carcass. The diagram shows the beef primal cuts as the percentage of the carcass weight and was sourced from the Beef Processing Options for Consumers publication by McKillip, Wilfong, and O’Quinn (2018).

Chuck: The chuck is commonly known for its boneless or bone-in roasts. However, it can also be used for steaks, stew meat, or ground beef. Examples of boneless steaks coming from the chuck include ranch steaks, flat iron steaks, and petite tender steaks.

Rib: Typically, bone-in ribeye steaks or boneless ribeye steaks and back ribs are cut from the rib. However, consumers may ask that the rib be cut into bone-in or boneless roasts for prime rib.

Short loin: The short loin can be cut into larger products like T-bones and porterhouse steaks or smaller cuts such as New York strip and tenderloin steaks (filets).

Sirloin: This cut can be used for boneless or bone-in steaks, with the boneless steaks being smaller compared to those with the bone-in. Roasts like the Coulotte roast (sirloin cap) and tri-tip roast can be cut from this primal as well.

Round: Tip roasts, rump roasts, heel roast, and top, bottom, and eye-of-round roasts all come from the round. Instead of roasts, the round can be ground or cut into steaks, some of which can be tenderized like cube steak used for chicken fried steak.

Ground beef: This product can be processed for various leaness, but most commonly produced as 90%, 80%, or 70% lean. As leaness increases, consumers however should expect fewer pounds of ground beef from a carcass.

Miscellaneous: In addition to the primal cuts already discussed, each carcass half has a brisket (whole or halved), flank steak, and two skirt steaks. Instead of skirt steaks, short ribs can be cut from the plate, or the cut can be ground. Use of the organs like the heart, liver, kidneys, oxtail, and tongue for human consumption are optional.

The tables below, sourced from the Beef Processing Options for Consumers publication by McKillip, Wilfong, and O’Quinn (2018) represent the type or amount of boneless or bone-in cuts one can receive from each of the primal cuts. The numbers in the table however, are based on an industry average carcass that is 800 pounds, low choice, and a yield grade 3 with a 3% cooler shrink/cutting loss assumed.

For more information or resources regarding Beef Processing, 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.
A long and healthy life doesn’t just happen. Everyday choices influence the quality of life you experience. Decisions start before your feet hit the floor in the morning. For instance, you made a decision whether or not to set an alarm or what time to set the alarm. Many decisions during the day are food-centered. Perhaps you think you just make three food decisions daily: Breakfast, lunch, and dinner. Well, think again. You choose how much or what kind of milk to pour on cereal, whether to have a second helping of lasagna, if you will eat that pastry or drink soda or coffee at the office, and on and on.

Other important decisions revolve around physical activity. Take the stairs or elevator? Exercise in the morning before work or in the evening after work. Since all of these decisions affect how your day goes, it is important to consider making a few common-sense changes. Many serious health problems are directly related to personal habits or behavior. So, set down and write out a plan to regain or maintain a healthy lifestyle.

Over time, poor eating habits affect overall health status. Problems related to obesity or chronic diseases such as diabetes, heart disease, or arthritis didn’t happen overnight. Making poor nutrition and exercise choices can even contribute to a generally poor emotional or mental outlook.

Start your day with breakfast and eating with your family. Food consumed first thing in the morning jump-starts metabolism and helps the body function better physically and mentally.

Include a fruit or vegetable with every meal or snack. Fruits and vegetables are naturally high in fiber and low in calories. They also provide a wide range of disease-fighting vitamins, minerals and antioxidants.

Making a conscious effort to reduce food portion size will do much to reduce the number of calories, as well as the amount of fat and added sugar consumed.

Eating slowly and eat only until you are no longer hungry is important. Learn to enjoy feeling satisfied and light on your feet instead of stuffing yourself. Try laying your eating utensil down between bites, taking a drink, or engage in conversation around the dinner table to help everyone slow down. When you routinely stop eating just as you begin to feel full and don’t take even one more bite, you can save as many as 500 calories a day.

Eat whole foods instead of highly processed foods. Whole foods mean less sugar, fat, sodium, and chemicals, and they provide more fiber and natural nutrients.

Along with choosing to consume healthier food, many people can achieve a healthy lifestyle by increasing physical activity. Start by investing in a good pair of walking shoes and walking around your neighborhood. Another habit that will increase success is scheduling time for physical activity during your day.

If you have been inactive for a period of time, make sure you do not overdo your first workout. Sore muscles or shortness of breath translate to not wanting to continue. As with any exercise program, check with your health-care provider first. It takes approximately six weeks of repetition to turn something into a habit. Get started and enjoy the outcome.
Join 4-H for the 2020–2021 year beginning October 1, 2020!
4hOnline.com

The youngest 4-H'ers aren't quite ready to participate in many of the project areas and/or activities that their older siblings can but there's still plenty to do in 4-H, starting with fun! The Cloverbuds experience emphasizes participation, learning, and teamwork, not competition. **Anyone ages 5-6 can be a 4-H Cloverbud and start building their skills for their future "career" as a 4-H member.**

Curious about how to build a birdhouse? Have you found an interesting rock and wonder what it is? Do you like animals, bugs, or nature? Budding gardener? Aspire to be a fashionista? Want to make your favorite food, explore a career, or use a camera to view the world?

Life's questions aren't meant to be answered alone. In 4-H, kids learn practical things like pet care, growing gardens or building things and important values like responsibility, leadership, and teamwork. Explore things that spark an interest! Discover new talents and skills! Make new friends! And best of all, have fun!

**4-H and Cloverbuds is open to anyone ages 5-18.** *(Age on December 31 of the current 4-H year.)*

4-H Ages: Cloverbuds 5-6; Juniors 7-8; Intermediate 9-13; Seniors 14-18

True leaders aren’t born: they’re grown. With 4-H volunteers in the Sunflower Extension District, youth become confident and strong, curious enough to question, and capable enough to find the answers. They become young people who work until the job gets done, know how to work with others, and lead. Volunteer with Cheyenne, Sherman, and Wallace County (Sunflower District) 4-H and help grow true leaders in your community by empowering young people with skills to lead for a lifetime.

Call us about YOUR spark and passion and we'll work together to find a way for you to share it with 4-H members.

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

**Inspire Kids to Do**
**Inspire Kids to Learn**
**Inspire Kids to Grow**
The Cheyenne County 4-Her

National 4-H Week
October 4-10, 2020

48 Hours of 4-H

Has your unit considered 48 Hours of 4-H projects yet? We hope everyone will join us on October 10-11 in seeing just how much we can give back to our communities! Invite your friends, clubs, adult volunteers, potential 4-H members and 4-H Alums too! Contact your Club Leader for more information.

Cheyenne County is being represented at State Shooting Sports by 4-H’ers in Archery, Shotgun and Small Bore Pistol. Good Luck to all these participants!

Are you interested in participating in Small Bore Pistol or Rifle discipline? If so, please contact the Extension Office 785-332-3171. We are in the process of adding this discipline to our Shooting Sports Program.

4-H Enrollment
Enrollment opens October 1st.

Sign Up Now!
# October Calendar

**Cheyenne County**

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Important Dates
October 1..............4-H Online Enrollment Opens
October 2 - 4............KJLS - KS JR Livestock Show
October 4 - 10............National 4-H Week
October 4..............Family Fun Day
October 10 - 11.........State Shooting Sports
October 11..............Ruleton Eager Beavers
October 11..............Prairie Dale
October 12..............Columbus Day/Ext. Office Closed
October 14..............Kids A Cookin’
October 15..............KAP’s Due to the Extension Office
October 16..............PDC Meeting via ZOOM
October 18..............Sunflower 4-H
October 19..............Country Clover
October 31..............Trunk or Treat
October 31..............Trunk or Treat

The Sherman County, Spooktacular 4-H Clubs invite you to join them on October 31, 2020, for a Goolish Treat between 12th to 14th street on Main. Time is TBA!

https://www.facebook.com/sunflowerextensiondistricts Shermancounty4h/

Event Changes for Sherman County 4-H
The Achievement Awards will be at the Sherman County Theatre on November 1, at 2:30 PM MST.

Leadership/Officer Training will be on November 15th at 3:00 PM MST. It will be at the 4-H Building. All clubs will meet together to hold an all club meeting. Details to come!

Join us for a Family Fun Day at the Sherman County 4-H Building on October 4, 2020, from 12:30 - 3:00 PM MST. A free Lunch begins at 12:30 PM, Fun & Games begin at 1:00 -3:00 PM. RSVP - October 2, 2020 by 5:00 PM MDT.
# Sherman - October 2020

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<td>Ruleton Eager Beavers&lt;br&gt;3:00 PM MST&lt;br&gt;Prairie Dale&lt;br&gt;6:00 PM MST&lt;br&gt;4-H Bldg.</td>
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<td>12th -14th Main Time is TBA</td>
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**Dates to Remember**

October
1– 4-H Enrollment opens
7– Record Books Due to office
12-13– 48 Hours of 4-H
14– Record Books Judged

November
8– Achievement Banquet
8– 4-H Council Meeting
21-22– KS Youth Leadership Forum-Virtual
26– Thanksgiving-Office Closed
27– Office Closed
27-Dec. 1– National 4-H Congress

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**Kansas Youth Leadership Forum-Virtual**

**What:** Build your leadership skills and potential through workshops, consulting groups, inspirational speakers and more. In addition, the 2021 State 4-H Youth Leadership Council will be elected at KYLF.

**When:** November 21-22, 2020

**Where:** Your Device (computer, tablet or phone) connected to the internet

**Who:** Youth 14-18 years of age before January 1, 2021

Call our office if you would like more information. Registration deadline is October 15.

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**Achievement Banquet**

The Achievement Banquet will be held on November 8th. Parents are asked to bring slideshow pictures into the Extension Office as soon as possible. Don’t bring any more than 10 pictures for each 4-Her. If you have any questions please call 785-852-4285.

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**Record Books**

Due to the Extension Office by October 7th. They will be taken to be judged on October 14th.

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**2020 Virtual State Fair Results for Wallace County**

- Foods
  - Jaelyn Daily-Purple
  - Blaise Fischer-Blue
- Visual Arts
  - Jaelyn Daily-Multicolor
- Fashion Revue
  - Regan Stramel-Purple

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**4-H Enrollment**

October 1 is the 1st day for online enrollments for the 2020-21 4-H year. An annual K-State Research and Extension 4-H program fee of $15 per member will be collected. With that being said, the Wallace County 4-H Council will pay the enrollment for each 4-Her again just like last year. **Also, you need to be enrolled by December 1st to be able to show in your county fair. If not enrolled by that date you will show in the open division.** If you choose to enroll after December 1st the enrollment payment is your responsibility. If you have any questions concerning this fee please call the Extension Office at 785-852-4285.

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*K-State Research and Extension is an equal opportunity provider and employer.*
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Sunflower Extension District #6
Goodland Office
813 Broadway, Room 301
Goodland, KS 67735

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
sherrik@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 Foxworthy
Livestock Agent
hfoxwor@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

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.