

Sunflower Extension District #6



March 2024
Newsletter



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March 2024

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Inside Your Newsletter...

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Bankers Award Winners in the Sunflower District



Sherman County Windbreak winner
Dallas & Gay Kuhlman



Sherman County Soil winner
Ross & Ashley Townsend



Wallace County Windbreak winner
Wayne & Trudi McKinney



Wallace County Soil winner
Tim & Linsey Bussen



Cheyenne County Water Conservation winner
Kaye O'Brien



Compare and Contrast Between Similar Herbicides

I recently asked farmers in northwest Kansas about their favorite irrigated corn herbicide program. I received lots of answers and it was clear that there are many paths to good weed control in corn. One thing that showed up often was that decisions were made to include herbicides of certain families (same herbicide mode of action), but there was often some ‘wiggle room’ on which products they chose within a herbicide family that that was often dependent on specific characteristics of the herbicide. Because of this, I put together a bit of information about herbicides that are similar, but may differ in what fits best for your production system.

I like to apply flumioxazin (Valor EZ/Panther SC/etc) in early spring to help with kochia control, but I have heard about sulfentrazone (Spartan/Authority) also working. Would a sulfentrazone-containing product be a better fit to prevent kochia?

Flumioxazin and sulfentrazone are both in the same herbicide family of PPO inhibitors (Group 14). These herbicides work by causing damage to the cell membranes when the plant encounter light, even before it emerges from the soil. The cell membrane damage makes the cells leaky, causes the cells to die and results in plant death. Both flumioxazin and sulfentrazone have activity on kochia and Palmer amaranth. Products that contain flumioxazin include Valor EZ, Panther SC, Zaltus SC, etc.

There are a couple of things to keep in mind with these two herbicides. Sulfentrazone has a longer half-life (longer rotation restrictions) and because of this it is a better fit for fall applications or on fields where the corn is planted later.

The rotation restrictions are:

Spartan Charge (sulfentrazone+carfentrazone (Aim))
4 months to field corn

Authority MTZ (sulfentrazone+metribuzin) –
4 months to corn (if 14 oz or less)

Flumioxazin has a shorter half-life and shorter residual. It is a better fit for early spring applications because of shorter residual activity.

The rotation restrictions by rate are:

- 2 oz or less – 7 days to corn
- Up to 3 oz – 14 days to corn
- Up to 4 oz – 4 months to corn

I can find metolachlor and s-metolachlor at different prices.

What is the difference between metolachlor and s-metolachlor and are they applied at the same rate?

Both metolachlor and s-metolachlor are Group 15 Long Chain Fatty Acid Inhibitors and are the same herbicide molecule. There is R-isomers and S-isomers of metolachlor that are just slightly different in their structure of the molecule. Metolachlor contains both R-isomers and S-isomers. Chemists have found ways to change the manufacturing process, so that a greater percentage of the active isomer (S-isomer) of the herbicide is produced (like for s-metolachlor). By marketing a product that contains only the active isomer, a company can reduce the amount of product required for weed control.

Table 1. Comparison of rates for Dual II (metolachlor) and Dual II Magnum (s-metolachlor).

Dual II rate (pt/A)	metolachlor (lb/A)	Dual II Magnum (pt/A)	S-metolachlor (lb/A)
1.5	1.46	1.00	0.96
2.0	1.95	1.33	1.27
2.5	2.44	1.67	1.59
3.0	2.92	2.00	1.91

In addition, you might be wondering about the ‘II’ as part of its name (i.e. Dual II Magnum). The ‘II’ shows that there was the addition of a safener, to help limit corn injury. Therefore, Dual Magnum = no safener and Dual II Mangum = safener added.

How do I pick between s-metolachlor and acetochlor?

Both s-metolachlor and acetochlor are Group 15 herbicides. Acetochlor binds less tightly to soil colloids than s-metolachlor, and thus would be expected to require less rain for activation. Research on giant foxtail control at the University of Illinois looked at how the amount of rainfall affected control with s-metolachlor and acetochlor. It showed only statistically different levels of control at 0.25” with acetochlor having significantly higher level of control than s-metolachlor on giant foxtail.

Table 2. Influence of rainfall on activation of two Group 15 herbicides. Simmons U II. 1967.

Herbicide	Inches of rain				
	0	0.1	0.25	0.5	1.0
----- % giant foxtail control -----					
S-metolachlor	55	50	57*	85	100
acetochlor	52	55	75	92	100

* Indicates significance between the two herbicides within a rainfall amount.

We often use atrazine, but would metribuzin be a better fit?

Both atrazine and metribuzin are Group 5 (photosynthesis inhibiting/photosystem II inhibiting) herbicides. These herbicides negatively affect processes and products necessary for the transport of chemical energy in the plant. Metribuzin is more water soluble than atrazine. In addition, the half-life of metribuzin is 7 to 28 days, whereas the half-life of atrazine is 1 year or more.

What is herbicide half-life?

A half-life is the time it takes for a certain amount of a pesticide to be reduced by half. This occurs as it dissipates or breaks down in the environment. The half-life does not actually mean the length of residual weed control, but can be utilized to compare between similar herbicides. The half-life is typically reported in a range of time.

Many things play a role in how long a pesticide remains in the environment. These include things like sunlight, temperature, presence of oxygen, soil type and acidity, and microbe activity.



Management Considerations for March 2024

By Jason M. Warner, Ph.D., Extension Cow-Calf Specialist

Cow Herd Management

- Start post-calving nutrition programs for spring-calving females.
 - Begin lactation rations once first calving cycle is complete.
 - Make sure thin (BCS \leq 4.0) females are on an increasing plane of nutrition going into breeding.
- Pregnancy check and wean fall-calving cows if not already done.
- Evaluate your mineral program for the coming spring and summer seasons.
 - What was your average consumption last year?
 - Do you need to make changes this year to achieve targeted consumption?
- Consider magnesium supplementation levels, particularly for lactating cows grazing wheat, rye, or triticale in the spring.
- If synchronizing females for breeding, schedule your protocols now well in advance of the breeding season and mark your calendars.
 - Use the estrus synchronization planner available to you.
 - <https://www.iowabeefcenter.org/estrussynch.html>
 - Inventory your A.I. supplies and check your semen tanks.
- Evaluate herd bulls for BCS and adjust as needed prior to breeding.
 - Bulls need to be in a BCS \geq 5.0 prior to the next season of use.
 - Schedule breeding soundness examinations with your veterinarian.

Calf Management

- Market your fall-born calves if not already done.
- Schedule your spring calf working activities and visit with your veterinarian to discuss your calf health protocols.
- Monitor growth and pubertal development of replacement heifers.
 - Heifers should be having active estrous cycles prior to breeding.

General Management

- Make sure you complete your spring calving records!
 - Don't forget late-calving females as you focus on other spring projects.
- Rethink your turn-out dates if pastures were stressed from drought last year.
 - Plan/adjust your feeding dates accordingly.
- Take inventory of any feed/forage that will be left over from winter.
- Cover piles or close bags if silage is left over and won't be fed until fall.
- Clean up any soiled bedding or unused/wasted feed to reduce the breeding and development of stable flies as the weather warms up.
- Finish pasture management projects started last year:
 - Repair or replace fences as needed.
 - Burn if conditions allow, cut and pile trees, particularly Cedar trees!
 - Clean and repair tanks and equipment as needed so watering sources are working properly when cattle are turned out to pasture.
- If making bull selection decisions:
 - Review your herd performance relative to your marketing and genetic goals.
 - Study EPDs impacting your marketing and genetic goals and do your homework well before sale day.





Making Physical Activity a Habit



What does “regular” exercise mean?

To answer this question, refer to the Physical Activity Guidelines for Americans, which are based on the latest science. They include specific recommendations for different ages and stages of the lifespan. Key messages and guidelines for adults are to move more and sit less throughout the day and to “move your way.” For greatest health benefits, adults should do at least 150 to 300 minutes of moderate intensity activity or 75 to 150 minutes of vigorous intensity aerobic physical activity per week. (Or, use a combination of moderate and vigorous.)

Moderate intensity is working at a level where you can barely carry on a conversation, but not sing. Vigorous is when you are able to say a few words, but not a sentence. Adults should also do muscle strengthening activities that involve all muscle groups on two or more days per week.

You can realize both immediate and long-term benefits from physical activity. Some immediate benefits include better mood, improved memory, better ability to concentrate, and better decision making. You may feel less anxiety, your blood pressure may be lower, you may have better insulin sensitivity, and exercise can help you sleep better.



Identify things you value most in your life and think about how moving more and sitting less can contribute to those values.

Regular physical activity can postpone and prevent many chronic conditions. It can also treat and even reverse some chronic conditions such as diabetes, high blood pressure, and high cholesterol. Other long-term benefits include a lower risk of depression and anxiety, lower risk of dementia and cognitive impairment, and it aids in maintaining a healthy weight. Exercise can lower the risk of developing some cancers, especially breast, prostate, and colon cancer.

So, why don't people get enough physical activity? Some of the common barriers include lack of motivation, not enough time, and lack of access to exercise facilities and equipment. Some people just don't like to exercise or be active, they are too tired, or they are not sure what type of activity is good or how to do specific exercises.

Lack of motivation is one of the leading barriers to physical activity. Although many people understand the significant benefit of moving more and sitting less, some individuals just haven't quite found their “why” or they have a negative view of physical activity. The right “why” is the motivator that makes you genuinely want to prioritize physical activity. This comes from within, it's internal.

Think about the types of activities you truly enjoy. If you dread a certain type of exercise, stop doing it! Focus on activities you enjoy and actually look forward to doing instead. Pay attention to the immediate benefits that correspond with any changes in movement you've made.



Rock Springs 4-H Camp

Sign up to attend 4-H Camp!

<https://www.rockspringsranch4hcamp.org/sessions-rates/>

Sessions 4 – 6 have bus transportation from Colby

- June 16 – 18 (3 nights)
- June 19 – 22 (3 nights)
- June 23—28 (5 nights)

Become a camp counselor!

Leaders in Training (LIT) – Rising 10 – 11th Graders.

Counselors in Training (CIT) Rising 12th Graders.

No cost!

- June 9 – 14
- June 23 – 28
- July 7—12

YQCA

<https://yqcaprogram.org/>

Any members planning to show at State Fair or KJLS should complete the Web-Based Training.

We will advertise the Instructor-Led Trainings to be held in Thomas County when the dates are available.

Save the Date 2024 48 Hours of 4-H

Get this on your radar now! www.Kansas4H.org/484H

Join us this fall in seeing just how much we can give back to our communities! The weekend after National 4-H Week, is the perfect opportunity to set up a service project for the Kansas 4-H Service Challenge, 48 Hours of 4-H. Invite your friends, clubs, adult volunteers and 4-H Alums too!

When: October 12-13, 2024

Who: 4-H Members, 4-H Clubs, Friends, Adult Volunteers, Parents, 4-H Alumni



NW 4-H Judging Event Super Saturday

Saturday, March 23, 9:00am-Finish



Where: FHSU Albertson Hall on campus and Livestock Pavilion north of I-70, Hays, KS

Judging Contests include: Crops, Entomology, Horticulture, Life Skills, Photography, Livestock Skill-a-thon and Livestock Judging

Project Opportunities: (These are for NON-LIVESTOCK Judging youth)

- 1) KS Shooting Sports Ambassadors will host a non shooting, educational, hand-on activity.
- 2) The Ins and Outs of the dog project—make a parachute cord leash and other dog project related learning activities -\$8.00
- 3) Hands-on STEM activities that coordinate with basic engineering and match up with several 4-H projects.
- 4) Club meeting ideas, activities and challenges, that are great for officer leadership teams.
- 5) Fiber Arts—Bohemian Macramé wall hanging—\$15.00

Volunteer Sessions for Parents and Volunteers—Free

Sack Lunches provided with mandatory RSVP—\$8.00

Registration Link:

http://kstate.qualtrics.com/jfe/form/SV_6n7ovscdg5SbzEO



Looking Ahead

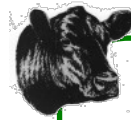
April 2024:

April 12—Sunflower District Club Days (Demonstrations, Illustrated Talks, Project Talks, Public Speaking)

Minimum of 15 participants to hold the event. Sign up following your county club day event if you want to move forward with your presentation in one of those categories. Contact your county office with any questions.

April 21-27—National Volunteer Week is celebrated annually during the third week of April and this year it will be observed from April 21 to 27, 2024. Families – please plan ahead to celebrate the 4-H volunteers who help make a difference!

April 27—Wallace County 4-H Project Learning Day Save the Date in Wallace County on April 27. All youth from Sunflower District are encouraged to attend and/or help. More information will come out when available.



Sherman Co Beef Weigh-In

Saturday, March 2, 2024,
from 9:00 - 10:00 AM MT
(weather permitting)

Cheyenne Co Beef Weigh-In

Sunday, March 3, 2024
From 4:00-6:00 PM CT

1. All members must be enrolled in the specific livestock (beef, sheep, swine, goat) project by the weigh-in/ID date. **Check your 4-H Online Enrollment.**
2. A member does not have to be present with their animals at the weigh-in/ID. Anyone may bring the animals.
 - Members may choose to tag their animals with EID tags at the county weigh-in/ID event. EID tags are not required if the animal is only being shown at the county fair.
3. If, for some reason, a family is not able to bring their animal(s) to the weigh-in/ID event, they must make **prior arrangements** to have their animal(s) tagged **no later than the date of the event.**
 - Animals may be tagged by the superintendent, or the tagging can be observed by Karen, Sherri, Linda, or Melinda.
 - Animals not weighed in at the weigh-in event, do not qualify to participate in the county fair rate of gain contest.
 - Animals not identified/tagged by the county weigh-in/ID DATE, may not be entered in the 4-H division at the county fair.
4. State Fair and KJLS have later ID deadlines (for nomination). Animals not EID tagged at the county event and being nominated for State Fair or KJLS may be tagged by the state nomination due date.
 - If an EID is required – Karen, Sherri, Linda, or Melinda must observe the tagging.
 - Families should give their county office at least a week's notice for post-county event EID tagging.

Sunflower District ZBook Webinar

The Kansas Project Record Book Online Version



March 11, 2024

6:00-7:00PM MT

Virtual "ZOOM" with us

Check your emails for the link

For families to learn:

What are the Advantages of ZBooks?

How to create a profile and navigate ZBooks

Setting up your Project Report Form

Setting up your Permanent Record

Have any questions?

Call 785-890-4880

Email karenelson@ksu.edu or sherrik@ksu.edu



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<http://www.facebook.com/sunflowerwallace>

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

New 4-H policy Guide: <https://www.kansas4-h.org/resources/policy-guide/Kansas%204-H%20Policy%20Handbook%202023.pdf>



Sunflower District

March 2024

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1. 4-H Scholarships Due	2. SH-Beef Weigh-In 9:00 AM MT (Weather Permitting)
3. CN-Beef Weigh-In 4-6:00 PM CT	4.	5. WA-Stay Strong, Stay Healthy	6. SH-Foods 3:30-5:00 PM MT 4-H Building	7. WA-Stay Strong, Stay Healthy	8. SH-4-H Days & Talent Night Creative Tables Starts @ 3:00 PM MT Talks begin @ 5:30 PM MT Talent follows Talks	9.
10. Daylight Savings time	11. ZBook Record Book Training Virtual Zoom 6:00-7:00 MT 7:00-8:00 CT	12.	13.	14. KS State 4-H Horse Judging Contest Salina	15. WA-Elder Abuse	16. K-State Sheep Producer Day Manhattan
17. 	18. SH-Elder Abuse	19. WA-Club Days 4:00 PM MT 	20. CN-Elder Abuse	21.	22. CN-Club Days 5:00 PM CT	23. Super Saturday Hays, KS
24.	25.	26.	27.	28.	29. Good Friday	30
31. 						



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