

Sunflower Extension District #6



April 2023 Online! Newsletter

Sunflower Extension District

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

Inside Your Newsletter...

Herbicide Applications for Wheat	Crop Production page
Branding-time Calf Health Considerations	Livestock page
Grow Your Own Microgreens	Family & Consumer page

Testing your Garden Soil

Most gardeners think soil testing only determines nutrient deficiencies, but the tests also help gardeners understand whether the soil contains adequate nutrients. Basic tests check the soil's pH, and the phosphorus and potassium levels.

K-State horticultural expert Ward Upham urges gardeners to test their garden's soil before beginning spring gardening, particularly if the soil hasn't been tested in several years. To do so, he says, take a sample from multiple locations in the garden and lawn, and which are representative of the soil. Samples should be taken at a depth between the surface and eight inches. Next, mix the samples together to total one pint of soil.

"A soil test determines fertility problems, not other conditions that may exist, such as poor drainage, poor soil structure, soil borne diseases or insects, chemical contaminants or damage," Upham said. "All of these conditions may reduce plant performance but cannot be evaluated by a soil test."

Upham recommends submitting dry soil samples, as wet soil has different precautions. "Wet soil samples should be air-dried before being submitted for testing," Upham said. "Do not use artificial means of drying such as an oven or microwave as such treatment may result in inaccurate readings of nutrient levels."

Soil tests should be used as a tool to identify nutrient deficiencies, Upham said, but often they do not tell the whole story of other factors affecting plant growth.

Reminder: We have Radon Testing Kits, Water Testing Kits, Soil Sampling Probe, Soil Fertility Testing, Hay Sampling Probe, Feed Testing, Seed Germination Testing all in our office. Contact your local Extension Office if you need any of these.

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Herbicide Applications for Wheat

With some of our wheat stands being thinner than ideal, herbicide applications will be an important part of keeping weeds at bay this spring. Because of this, farmers should pay close attention to the wheat growth stages before making spring herbicide applications. Some herbicides must be applied after tillering, several must be applied before jointing, and others can be applied through boot stage. Remember that weeds are most susceptible at early growth stages and coverage becomes difficult as the wheat canopy develops, so the earliest practical and labelled applications generally result in the best weed control.

Applications permitted prior to jointing

Dicamba can be applied to wheat between the 2-leaf and jointing stages of wheat. How do you know wheat is jointing? Jointing is when the first node is visible. You may be able to feel it on the stem or you may need to cut open the stem to see if there is a 'joint' visible. Application of dicamba after wheat reaches the jointing stage of growth causes severe prostrate growth of wheat and significant risk of yield loss. Dicamba is effective for control of kochia, Russian thistle, and wild buckwheat, but is not good for control of mustard species. Kochia, Russian thistle, and wild buckwheat are summer annual weeds that may emerge before or after wheat starts to joint, so timing of dicamba for control of these weeds can sometimes be difficult. Fortunately, dicamba provides some residual control of these weeds following application. Products labeled only for use on herbicide-resistant wheat must also be applied prior to jointing. Beyond should be applied to 1 gene ClearField wheats after tiller initiation and prior to jointing, but can be applied to 2gene ClearField wheats until the second node is detected at the soil surface. Aggressor should be applied to CoAXium wheat varieties after 4-leaf growth stage and before jointing. Beyond should only be applied to Clear-Field wheat varieties and Aggressor should only be applied to CoAXium wheat varieties.

Other herbicides that must be applied prior to jointing include Agility SG, Olympus, Outrider, PowerFlex HL, Pulsar, Rave, and Tarzec.

Applications permitted through boot

Herbicides that can be applied later in the spring – prior to boot stage – include Ally + 2,4-D, Amber, Finesse, Glean, Starane Flex, and Starane NXT. Starane is a better choice than dicamba products for control of kochia after wheat moves into the jointing



stage of growth 2,4-D is labeled for application to wheat from the full-tiller stage until prior to the boot stage of growth. Application of 2,4-D prior hinders the tillering process and can result in significant yield loss if applied too early. Wheat will sometimes exhibit prostrate growth when 2,4-D is applied in the jointing stage of growth, but yields generally are not significantly affected if applied before the boot stage of growth.

In general, MCPA is safer on wheat than 2,4-D, especially when applied prior to tillering. MCPA can be applied after the wheat is in the three-leaf stage (may vary by product label) until it reaches the boot stage of growth. Neither herbicide should be applied once the wheat is near or reaches the boot stage of growth, as application at that time can result in malformed heads, sterility, and significant yield loss.

Both 2,4-D and MCPA are available in ester or amine formulations. Ester formulations generally provide a little better weed control than amine formulations at the same application rates, but also are more susceptible to vapor drift. However, the potential for vapor drift damage in early spring is minimal. Ester formulations generally are compatible for use with fertilizer carriers, while amine formulations often have physical compatibility problems when mixed with liquid fertilizer.

Applications permitted through flag leaf

Many herbicides used in the spring on wheat can be applied up to the time the flag leaf is visible, or later. Some newer premix products based on the herbicide halauxifen methyl (Elevore) that can be applied through flag leaf are Pixxaro (with Starane), Quelex (with florasulam), Rezuvant (with Starane and Axial XL), and WideARMatch (with Starane and



Stinger). Halauxifen methyl is a Group 4 herbicide that controls emerged broadleaf weeds, including marestail, flixweed, henbit. Elevore is not labeled for application to wheat.

Other herbicides that can be applied through flag leaf include Affinity BroadSpec, Affinity TankMix, Ally Extra SG, Express, Harmony, Harmony Extra, Huskie, Sentrallas, Supremacy, Talinor Weld, and WideMatch.

For more detailed information, see the 2023 Chemical Weed Control for Field Crops, Pastures, and Noncropland guide available online at <u>https://bookstore.ksre.ksu.edu/</u> <u>pubs/SRP1176.pdf</u> or at your Extension Office.





Branding-time Calf Health Considerations

Vaccinations throughout a calf's life is an investment to prepare them for health challenges they may encounter that may cause illness, decreased performance, increased costs and even death. Many producers however have a hard time differentiating between what protocols throughout that calf's life that will provide a return and which are unnecessary. Dr. A.J. Tarpoff, Beef Extension Vet shares some thoughts in his *Capitalizing on Calf Health* webinar some of the points which are highlighted here.

It is important to remember that calves are born with a fully functioning immune system, but it is naïve. To strengthen and build that immune system it must be challenged in the form of actual pathogen threats or vaccines. Fortunately calves receive passive immunity from their dam via colostrum which is highly dependent on her own experiences, nutrition, body condition score, age, health and vaccine history. These antibodies passed on from the dam begin to decline over the next few months as the calf starts to strengthen its own system through active immunity. This transition often leads to questions about when to vaccinate and for what to provide the calves the best protection against pathogens it may encounter.

The first step to ensuring calves have the best start is colostrum rich in antibodies, fat, vitamins and white blood cells preferably within the first 6 hours of birth. If calves don't receive colostrum they are **6.4 times** as likely to get sick as a neonate, **3.2 times** more likely to get sick pre-weaning, and **5 times** more likely to die. If a calf cannot receive 10% of it's body weight in quality colostrum in the first 24 hours of life, it should be supplemented with a colostrum replacer with more than 100 IgG (if none received elsewhere) or with a supplement to add to other sources of colostrum. To reiterate, calves should receive colostrum within a few hours of birth to ensure maximum absorption, as after 6 hours the ability to absorb begins to decline.

Early in life, a big threat to calves is calf scours. As they age that threat transitions to Bovine Respiratory Disease (BRD) which can be considered calf pneumonia. To handle these threats we can implement quality nutrition, a clean environment, and vaccination, while things such as stress, weather, castration, transportation, and comingling cattle can all contribute to increased risk. No vaccine is 100% effective in certain situations. Vaccine protocols may change over time, but they should be created around disease potential for that class/group of animals, owner risk, and changes in purchasing all while measuring outcomes and if they meet the operation's standards.

The general guidelines for vaccine protocols on a cow calf operation is to vaccinate cows to protect pregnancies and to vaccinate calves to reduce the risk for their biggest threat of BRD. The first thing to consider before vaccination is if there is a functional immune system to get an adequate response from our vaccine. In cows, vaccines should be administered pre-breeding and at preg-check or pre-calving. Calves should receive vaccine at branding time, pre-weaning and at weaning if that is what the protocol requires. These guideline ensure that animals will be building antibodies prior to risk. Generally, calves at branding should be administered a vaccine against Clostridial diseases (7 or 8-way), respiratory diseases (5-way viral), and tetanus if castrating. According to one study, 88% of veterinarians recommend using a Modified Live Vaccine when possible to elicit the best response in calves at branding. See below for a comparison of the types of vaccine available. Other considerations should include deworming for internal parasites as well as growth implants.

> <u>Modified Live Vaccines</u>—Stronger, faster, longer protection, cheap, must be handled carefully

<u>Chemically Altered Vaccines</u>—Similar response to MLV, not as long of protection, no systemic replication, temperature sensitive, more expensive

<u>Killed Vaccines</u>—Stable in storage and handling, risk of anaphylaxis, requires multiple doses

Branding is a great time to vaccinate calves around 2-4 months as their maternal antibodies are declining and their own immunity is increasing. This often can be seen as priming the immune system before they receive their pre-weaning vaccines to reinforce their immunity against challenges they will experience at weaning and beyond. Producers should feel confident that they will receive a reliable vaccine response by 2-3 months of age, and in calves as early as 1 month of age with some products. This stresses the importance of doing proper vaccine research to determine if calves are old enough to receive certain products.

In addition to implementing a sound vaccine and health program, ensuring that calves receive adequate quantity and quality of colostrum, cold-stress is minimized, calving locations are as clean as possible help set them up for a solid immunity. In addition to that immunity, it should also be a goal to avoid compounding stressors as much as possible. Finally keep good records of what was administered, what/how many calves were treated and if any died. This will aid in determining effectiveness of the program and indicate if something needs to be changed in the future. Work with your veterinarian to develop a health protocol that best fits your operation. For more information visit <u>www.youtube.com/watch?v=K-ypRxgO1JI&t=2s</u> where K-State Beef Extension Veterinarian Dr. A.J. Tarpoff leads a *Capitalizing on Calf Health* webinar.



For more information on calf health programs, please visit or call the Cheyenne County Extension Office at (785)332-3171.







GROW YOUR OWN MICROGREENS

Did you know, that you too can grow microgreens during the cold months.

Recently I attended a conference and learned how to grow my own microgreens in the house, in March. It was awesome and they grew very fast. I planted Arugula and Cinnamon Basil.

Items you will need:

Potting Soil

Seeds

- Paper towel
- Pots for planting
- Marker
 - Labels

Instructions:

Moisten the potting soil

• It's important or make sure that the soil is damp before you start using it. It should feel moist to the touch, but not sopping wet.

 Pour a little bit of water into the bag of potting soil, mix it up, squeeze it to feel if it needs more water, and add more water if necessary.

Fill the pots:

- Fill each pot full with potting soil.
- Gently but firmly press the soil down. Don't smash it down, but don't pat too softly, either.

• Add more potting soil so that it is almost to the top of the pot, and gently pat that down too. You will have some potting soil leftover.

Place the seeds:

- Scatter one package of seeds into the pot,
- Make sure the seeds are spread out, not too clumped together. Try to avoid too many in a cluster.
- Gently press the seeds into the soil surface with the back of a spoon. Label your seeds.

Cover seeds with paper towel (trip so it fits on top of the soil).

Water seeds:

Water your seeds, you can mist them with a spray bottle. Place in sunny, warm spot. Watch them grow!

Growing Your Own Herbs

Gardeners usually like to grow many types of plants, and some gardeners are particularly attracted to herbs. The simple definition of "herb" is a plant, but usually implies one that might be used for cooking (culinary herb) or medicine (medicinal herb).

Herbs and spices have been used for centuries to season and flavor foods.



Modern consumers use both herbs and spices to enhance the flavor and healthfulness of foods. Spices from all over the world are widely available. Herbs can be grown in the home garden or purchased from farmers market or grocery stores. Seasonings are sold whole, crushed, powdered, dry, or fresh to provide a variety of flavors.

Fresh herbs are easy to preserve for future flavor. For short-term use, within a week, store in a glass with a small amount of water in the refrigerator. Cover loosely with a plastic bag. They can also be frozen.

Join us in April to learn more about growing and cooking with herbs. Programs will be offered in Sharon Springs-April 11, Goodland-12th and in St. Francis on the 13th, for "Knowledge at Noon". Watch for flyers in your counties to get more information or call your local Sunflower Extension Office.



The District 4-Her



4-H engages, enables and empowers more than 6 million young people every day and the Sunflower Extension District thanks all the 4-H volunteers for your many hours of work and dedication to the 4-H members here in NW Kansas!!

4-H families and members—please remember to thank all the volunteers who make a difference in your life during National Volunteer Week April 16—22, 2023!



Sherman County 4-H Days & Talent Night Results

Cloverbud Project Talk Harlyn Short

JR Project Talks

Sophia Eftink—alt blue Hensley Short—top blue Jesslee Smith—blue Madelyn Spellmeier—top blue

JR Demonstrations

Tyler Starns—top blue Jesslee Smith—blue Rorie Martin—top blue Madalyn Spellmeier—alt blue

INT Project Talks

Cadence Gattshall—top blue Quade Gattshall—red Oliver Eftink—red Rylea Martin—top blue Hudson Short—alt blue

INT Demonstrations & Illustrated Talks

Elly Evert—top blue Kimberly Hollingshead—alt blue Haisley Short—top blue

Sr Demonstrations

Mason Berls—alt blue Matthew Berls—top blue Hayden Short—top blue <u>Dance</u> JR Claralee Henderson—top blue JR Ella Henderson—top blue JR Maggie Emig—blue

<u>Piano</u>

JR Sophie Evert—alt blue JR Claralee Henderson—top blue INT Krista Evert—blue INT Elly Evert—alt blue INT Haisley Short—top blue

<u>Talent</u> JR Tyler Starns & Jett Stephens—top blue County Clovers—top blue

> <u>Skits</u> Prairie Dale—blue Sunflower—top blue Ruleton Eager Beavers—alt blue

Creative Tables Junior

Sophie Evert—blue Claralee Henderson—blue Ella Henderson—blue Jance Mosbarger—blue Hensley Short—blue Madalyn Spellmeier—top blue

Creative Tables Intermediate

Elly Evert—top blue Krista Evert—blue Kimberly Hollingshead—blue Rylea Martin—blue Haisley Short—blue

<u>Senior</u> Hayden Short—top blue

Posters Cloverbud Harlyn Short

Harlyn Short

<u>Junior</u>

Sophie Evert—blue Rorie Martin—blue Hensley Short—top blue Madalyn Spellmeier—blue

Intermediate

Elly Evert—blue Krista Evert—blue Kimberly Hollingshead—blue Rylea Martin—top blue Haisley Short—blue Hundson Short—blue

Senior

Mason Berls—blue Matthew Berls—blue Kerrek Lockhart—blue Sarah Nemechek—top blue Hayden Short—blue



The District 4-Her



Small Animal Weigh-in

Sherman County: When: Monday, April 24, 2023, from 4:00-6:00 PM MT Where: Fairgrounds Livestock Barn

Cheyenne County: When: April 26, 2023 from 6:00-7:00 PM CT Where: Cheyenne County Fairgrounds

Wallace County: When: Monday, May 1, 2023 from 4:00-6:00 PM MT Where: Wallace County Fairgrounds

4-H Goat, Sheep, & Swine Project Members must be enrolled in the project before weigh-in.

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Reminders:

All add or drop in projects are due on May 1, 2023 or you will show in open class. Please check your project enrollment to make sure you have enrolled in the projects you are wanting. Contact your local Extension Office if any changes need made.

Unfortunately, individuals do not have the option on 4-H Online to add to their projects. The Extension Office has to do it for you.



<u>The 2023 Cheyenne County Fair Theme</u> Cheyenne County Fair—Where Legends Are Made Congratulations to the Go Getters for submitting the winning entry

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http://www.facebook.com/sunflowerwallace

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

Sunfower District April 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1. WA—Project Learning Day CAB
2.	З.	4. CN—Stay Strong, Stay Healthy	5. SH—Foods 3:30 - 5:00 PM 4-H Building	6.	7. Good Friday Extension Closed	8.
9.	10.	11. WA—Herbs Extension Office noon	12. SH—Herbs Assembly Room noon	13. CN—Herbs Courthouse Noon CN—YQCA Training Extension Office 5:30 pm CT	14.	15. KASLA Applications Due
16.	17.	18.	19. SH—YQCA Training Assembly Room 3:30 PM	20. WA—YQCA Training Exten- sion Office 6:00 pm MT Market Beef DNA Envelope dead- line	21.	22.
National Volunteer Week April 16 - 22, 2023						
23.	24. SH—Small Ani- mal Weigh-in 4:00 - 6:00 PM Fairgrounds Barn	25.	26. CN—Small Ani- mal Weigh-In 6-7:00 pm	27.	28.	29.
30.						



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