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It’s Fair Time

Buckets, Boots and Blue Ribbons
Northwest Kansas District Free Fair
July 29 - Aug 5th
Fair Entries due by July 12th
http://www.nwksfair.com/

Cheyenne County Fair—
Where Legends Are Made
August 2nd-4th
Fair Entries due by July 14th

Wallace Co Fair
July 27-29
“Footloose and Groovy at the County Fair”
Fair Entries due by July 7th
Palmer Amaranth Control in Grain Sorghum

Pre-emergence herbicides are critical for successful weed management in grain sorghum, especially for difficult to control species like Palmer amaranth. However, occasionally we have Palmer amaranth plants that escape the preemergence control and grow ‘like weeds’.

Unfortunately, post-emergence herbicide options in grain sorghum are limited. All of the available options are most effective when small (under 4 inches tall) weeds are targeted. This article will review the pros and cons of key post-emergence herbicides that control Palmer amaranth in grain sorghum. Combinations of the herbicides listed here will generally improve control.

**Atrazine** can control sensitive populations of Palmer amaranth and can be combined with other herbicides to enhance effectiveness. Recommended rates range from 0.25 to 2.0 pounds of atrazine (0.5 to 4 pints). Atrazine should be applied with crop oil or surfactant to control emerged weeds. Atrazine can be applied to grain sorghum between 3-leaf and 12 inches or between 6 and 12 inches in western Kansas.

**Aim** (carfentrazone) is a Group 14 herbicide that can be applied to grain sorghum between 4 inches and boot stage. It is less effective than some of the other herbicides in this article and requires good coverage for maximum effectiveness. Aim can be tank-mixed with atrazine, 2,4-D, dicamba, bromoxynil, and Huskie. Aim is likely to burn grain sorghum leaves, especially if applied in very hot, humid weather or if applied with crop oil. Leaf burn will also be greater if Aim is applied with bromoxynil.

**2,4-D** is an effective herbicide option to control Palmer amaranth. However, crop response should be expected, especially if applied in hot, humid conditions. Crop responses can include rolled leaves, lodging, and brittle stems. Grain sorghum is most tolerant of 2,4-D applications when it is 5 to 10 inches tall. Drop nozzles should be used when applying 2,4-D to grain sorghum greater than 8 inches. To reduce crop response, apply lower rates (2/3 pint) with atrazine, Aim, bromoxynil, or Huskie. Using crop oil in tank mixes with 2,4-D will increase crop injury.

**Dicamba**, at the rates used in grain sorghum (0.5 pint), may be less effective on Palmer amaranth than 2,4-D. It can be applied to grain sorghum between 2 and 15 inches. Drop nozzles should be used if grain sorghum is 8 inches or taller to avoid damaging seed heads. Crop response, including rolled leaves and lodging should be expected, especially if applied in hot, humid conditions. Dicamba can be tank-mixed with Aim, atrazine, and bromoxynil.

**Bromoxynil** can be applied from the 3-leaf stage through boot stage. Crop response will be less with bromoxynil than other herbicides, but bromoxynil alone will not control Palmer amaranth larger than 4-leaf. Adequate spray coverage is needed for maximum effectiveness.

**Huskie** (pyrasulfotole+bromoxynil) is most effective when mixed with atrazine (up to 1 pound). When used alone, it can be applied between 3-leaf and 30 inches and should be applied with HSOC (high surfactant oil concentrate) or AMS + NIS. Huskie will cause leaf burn, which can be greater in fields where mesotrione was applied pre-emergence. Huskie plus atrazine may be tank-mixed with phenoxy broadleaf herbicides such as 2,4-D or dicamba as needed.

Additional information can be found in the 2023 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland, K-State publication SRP-1176. The use of trade names is for clarity to readers and does not
Creating a Plan for Healthy Weaned Calves

Weaning is a necessary management strategy to transition our calves from the cow herd to the next stage of production. This transition can be stressful for young calves and ranchers. Preparing not only the cattle, but also the operation for weaning can greatly reduce the strain that can occur especially if the calves are going to be weaned and maintained on the operation. Weaning should be a planned strategy of the yearly herd cycle, rather than a spur of the moment event. The goals are to prepare the calf to minimize health issues such as BRD (Bovine Respiratory Disease) after weaning, as well as to prepare them for a new environment without their mother.

Health Planning:

Understanding the calf’s immune function during this time is important. A calf’s immune system takes several months to provide complete protection. The intake of colostrum shortly after birth provides passive immunity and antibodies that provide the immune protection early in life. Until 2 to 4 months of age, maternal antibodies from colostrum are the key players in the calf’s immune protection. These maternal antibodies play a role in how the young calves will respond to immune challenges such as vaccines. When these maternal antibodies start to decrease, it is a prime time to initiate a vaccine protocol to help boost the active immune protection of the calf. This period often coincides with typical branding times.

Working with a local veterinarian can help make product selection during different periods of a calf’s live simple. While every calf may not fully respond to vaccines at branding, vaccination primes the immune system memory for a booster later in life. Vaccines to consider for branding-aged calves would be a multi-strained respiratory viral vaccine (IBR, BVD 1&2, BRSV, PI3), and a multi-strained clostridial (7-way or more). Once the calf is closer to weaning, planning a booster vaccination will help bolster the calf’s immune function prior to the stressors of weaning. The vaccine booster targets the same pathogens as the initial branding vaccination with the addition of respiratory bacterin vaccines against the bacteria that cause pneumonia and should be administered 3–4 weeks prior to weaning. Animal health procedures conducted prior to weaning will help ensure calf health through the transition of weaning. The booster vaccinations could be held until the day of weaning, but that offers yet another challenge that the calf must overcome post weaning. The aim is to have two rounds of vaccination prior to or at weaning.

Multiple stressors compounded on each other, and decreased health go hand in hand. Painful procedures such as castration, dehorning, and branding should be conducted well before the day of weaning, preferably in the first few months of life. Due to other constraints on an operation, it may not always be feasible. If initial vaccination and management procedures such as castration were not conducted early in life, they should be conducted 3–4 weeks prior to weaning. This will help spread the stressors out over time to limit the strain on the calf’s immune system. During this period of time, control of other stressors such as external parasites and internal parasites can be initiated. External parasites of concern are mostly flies during the late summer months. Internal parasite control should target gastrointestinal nematodes (worms) as well as coccidiosis during this stressful time.

Management Preparations:

- Consult with your local veterinarian to establish a treatment protocol to use if calves get sick. Do not wait until the last minute to have this discussion. Antibiotic product choice, and timeframes can all be discussed to be fully prepared for any anticipated health insults.
- Facilities are imperative if calves are to be weaned and maintained on the ranch. Fences, handling and feeding areas should all be inspected, and any routine maintenance be conducted prior to weaning.
- Developing a plan to control inclement environmental concerns such as heat (or cold), mud (or dust) can be very helpful in ensuring overall health, performance, and welfare of these calves. Pen preparation, manure hauling, sunshade, wind-fences, and checking the water source are all potential control areas.
- Consider a soft weaning strategy to minimize stress. Fence-line or 2 stage weaning might be an option. Acclimation of calves to their new environment and feed can also be a way to minimize the stress. This would entail bringing cow/calf pairs into the weaning environment for several days then removing all the cows. This gives the opportunity for calves to clearly identify their new surroundings.
- Nutrition is key during weaning, whether onto pasture or into a drylot. Feedstuff inventory, feeding equipment maintenance, and a nutritional consultation should all be conducted prior to weaning to ensure reliable feed deliver, intake, and performance.

For more information, please visit or call your local County Extension Office at (785)332-3171.
I would really like to encourage EVERYONE to bring something to the County Fair. We have a lot of different options.

First, come by the Sunflower Extension office and pick up a County Fair Book. The next step is to look through the book to see what you could possibly take to the county fair.

Let’s show our talents off in our counties.
I know there are people out in our communities that make beautiful quilts and what better way to show them off than at the county fair. I also know we have some great cooks out there as well. So, bring your favorite pie or bread and show it off. We even have a judges guide in our office for Foods and Nutrition Exhibits. Photography is a great class to enter in, almost everyone takes pictures. So get your projects ready for fair. There are many classes to choose from, so get involved.

Why is Food Safety Important?
Every time you cook, it is a science experiment! Not all recipes are appropriate for the county fair and you need to be smart about food safety. Questions you might ask are: Does it require refrigeration? Would you eat this food at room temperature? Will this product hold up to its standard when it is judged or displayed?

Most Common Baking Problems
Incorrect ingredient measurements — Overmixing and Under mixing — Oven problems-Wrong oven temperature or Underbaked/Overbaked — Baking pan issues-Greasing pan too much, Wrong size of pan or Type of pan.

Foods NOT safe or Recommended for Fairs
- Raw eggs in uncooked frostings or fillings
- Raw flour in uncooked frostings or fillings
- Cream cheese frosting or filling
- Chocolate ganache
- Heavy cream frosting
- Lemon curd
- Fresh cut fruit or vegetables as garnishes
- Custard pie
- Cream pie
- Chiffon pie
- Fresh (unbaked) fruit pie (ex: fresh strawberry pie)
- Any meat
- Friendship bread starter, not refrigerated

Food Preservation Exhibits
Food safety is very important for food preservation exhibits at county fairs and the Kansas State Fair. Good practices must be followed. For any fair entry, always read the rules in the fair book for details on what and how food preservation exhibits should be entered.


Home food preservation is a way to preserve the freshness of homegrown food. While more popular in years past, preserving food at home is still done today. Without factoring in the labor costs, home food preservation can save money compared to commercially preserved foods. When done properly and safely, home preserved foods are a treat.
The District 4-Her

Cheyenne County Updates and Changes-New for 2023 Fair
Make sure to read the Fair book and familiarize yourself with dates and rules. Also, a pre fair letter has been sent outlining important information pertaining to fair. Your Club leader is always a good “go to” for information. Fair books can be picked up at the Extension Office and are online at cheyenneksfair.com

Sherman County Updates for 2023 Fair
4-H Fair Entries & 4-H Style Revue Scripts are due July 12th by 5:00 pm MST. The 2023 NWKS District Free Fair is open for entries on June 12th for the public and 4-H. You can find this at nwksfair.com.

Wallace County Updates and Changes-New for 2023 Fair
Blow and Go is for all species this year. Those rules are written in the Fair book. A copy of the rules can be picked up at the Extension Office if needed.

State Events Coming Up:
July 11- Cattle U Education Event Manhattan
August 10- KLA/K-State Ranch Management Field Day Mushrush Red Angus
August 17– KLA/KSU K-State Ranch Management Field Day Carpenter Cattle Co.
August 19-20– Livestock Sweepstakes Manhattan
September 28– K-State Beef Stocker Field Day Manhattan

K-State Research and Extension is an equal opportunity provider and employer.
The Summer has kicked off to a great start for the Sunflower Extension District #6, Summer Day Camp Activities.

Cinco de Mayo  
Fishing Clinic  
Babysitting Clinic  

Jr. Chef's in St Francis
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Sunday July 2023
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