



Family Consumer Sciences

The Biology of Stress

Bonnie Brewer – FCS Agent

The effects of stress can be physical, emotional, and behavioral/social. Although everyone experiences stress, few people know how it affects their bodies.

At the onset of stress, the body engages in a response that involves communicating with the brain to evaluate a threat based on your senses. The hypothalamus, a region at the front of the brain, is activated when a threat is perceived (stress occurs). When activated, your body decides whether to fight (face the stressor head-on), flee (run away from the stressor), or freeze (become numb to the stressor).

Many reactions occur within the body during an attempt to deal with the stressor. Some of these reactions include an increase in adrenaline, an increased release of cortisol (the stress hormone), the senses being enhanced, and the digestive system and urine production slowing to redirect blood to more critical areas.

Although these are the common events that happen while someone is under stress, it's important to remember that different stressors cause different reactions in different people. Two people may experience the same stressor, yet their bodies may respond in completely different ways.

Horticulture

Pesticide Safety

Calla Edwards – Horticulture Agent

Spring is a time when homeowners start waging a war on insects and weeds around their homes usually using a chemical product. No matter, if you are using organic or synthetic chemicals, using them correctly, is vital to your health and how well the product works. Pesticides can be an important tool in your gardening toolbox, but only if they are used properly. Here are some tips to use pesticides safely around your home this year.

- Correctly identify what you want to control: Before applying any chemical the first step is to figure out what you are trying to control in the first place whether it's a weed, an insect, or a disease.
- Choose the right pesticide: Once you know what you are trying to control, then you can figure out what product to use.
- Read the Label!!! The label will give you all the information needed to safely apply that chemical including the clothes to wear, the rate to apply, the weather to apply in, how long till it is rain fast, and how to clean up after the chemical is applied. Be sure to read the label before mixing or applying any chemical.
- Clothing counts: Most of the time exposure to chemicals can be prevented by wearing the proper clothing including closed-toed rubber shoes, long pants, long-sleeved shirts, and the correct gloves. It's important to wear the right clothing. After you finish your application, wash your clothes using powder laundry detergent on the hottest and deepest water setting that the washing machine has.
- Don't forget the Shoes: Be sure to remove any shoes you used spraying outside the house and triple rinse them off to make sure the chemical has been removed. If possible, leave them in a garage and use them only outside.
- Always use the original container: No matter what chemical you use always keep it in the original container.
- Storage and Disposal: Make sure to store all chemicals away from children, preferably in a locked cabinet. Chemicals also should not be allowed to freeze in the winter as this impacts how well effective they are. If you have extra chemicals that you won't use be sure to dispose of them properly at a hazardous waste collection site. Never dump chemicals down the drain or pour them out onto the ground. Once a bottle is empty be sure to triple rinse the bottle before disposing of it.

Pesticide safety is an important aspect of working in a lawn or garden. Even organic chemicals can be harmful if you are exposed to them. Chemicals themselves are not bad, they are simply a tool in a gardener's toolbox when used correctly. The issues happen when you don't read the label and don't follow the instructions. Remember to be safe, read the label, and have a wonderful gardening season.

4-H & Youth Development

Madeline Wallace – 4-H & Youth Development Agent

School break and summer will be here before we know it! Summer in 4-H is a great time to register and attend so many state-wide events from livestock shows to Discovery Days to 4-H Camp at Rock Springs Ranch. Before we get ahead of ourselves, it's important to remember to finish out the school year strong! Here are some helpful tips to make sure you end the school year on a high note.

- Keep a positive attitude!
- Set goals
- Prioritize self-care
- Communicate openly with parents and teachers

Finish the year strong and don't be afraid to reach out to those around you if you need help!

Agriculture

White Grub Damage in Brome Fields

Charlene Miller – Agriculture Agent/Extension Director

White grubs, the larvae of beetles commonly known as May beetles and June beetles, can be pests of many different commodities. Dead patches in brome fields in Kansas have recently been reported (Figure 1). The sizes of the dead patches varied across affected fields, but in all cases, white grubs could easily be found in soil when collecting samples from the areas (Figure 2). This strongly indicates that the white grubs are responsible for the observed dead zones.

These beetle larvae are belowground pests, feeding on root systems, and can impact a field for several seasons as they take three years to mature fully. Eggs are laid in the spring when adult beetles are attracted to fields. After hatching, the tiny grubs will feed on roots all season long. This first season of feeding often goes completely unnoticed due to the small size of the larvae, which prevents significant root damage. When the soil cools off in the fall, the larvae, now larger from a season of feeding, descend into the soil profile and overwinter there. The following spring, as soil temperatures increase, the larvae move up into the root zone of the field and commence feeding. It is during this second season of feeding that damage can become apparent. The larger size of the grubs means that more root tissue can be consumed faster. So, when white grub populations are large enough, it can lead to the appearance of dead spots in brome fields like those being observed this spring.

Feeding will continue this season, and the grubs will once again overwinter in the soil at the end of the fall. Next spring, feeding damage should be minimal as grubs are nearing maturity and will stop feeding to create an earthen chamber in which they will finish development and emerge as adult beetles the following year.

Options for damaged fields

With the damage already done this year, what can be done about the dead spots? Depending on the extent of the damaged area, there are a couple of potential options. Replanting the dead areas could be considered if losses are not extreme. Replanting brome in the fall would give the plants time to develop a stronger root system to minimize grub damage the following spring when they resume feeding. Before replanting, treatment of the areas with carbaryl could help reduce the grub population, but this option is not guaranteed to solve the problem as older grubs are less susceptible. It is important to get the insecticide carried into the soil profile where the grubs are more likely to come in contact; surface application will be ineffective, especially if the area is covered with dead vegetation.

In situations where losses are very large, replanting to something else is an option. If this is done, the remaining brome and any other live plants should be destroyed at least 2 to 4 weeks before planting. To reduce injury from remaining grubs, the seed should be treated with an insecticidal seed treatment, and a planting-time insecticide application might be considered.

A replanting option could be a summer annual forage crop. Where most of the brome is dead, kill off the remaining brome with glyphosate and plant a summer annual around June 1. Alternative summer annuals to consider are sudangrass, a sorghum-sudan hybrid, or pearl/foxtail millet. Information regarding these summer annuals can be found in MF2871 Summer Annual Forages: Selection and Production Characteristics. The summer annuals can be grazed or hayed. One concern may be environmental stress. These species can all accumulate nitrates if the weather is dry. Prussic acid could be another issue with the sorghum species. Prussic acid is not an issue if a millet is planted. After utilizing the summer annual, smooth brome could be seeded in the late summer to fall time period. The optimum time for seeding brome varies a little across Kansas, but August 20 to September 15 usually works well. Information regarding seeding and establishment of smooth brome can be found in C402 Smooth Brome Production and Utilization.

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BUTLER COUNTY BLACK GOLD SPRING SHOW

May 12th, 2024

Butler County Fairgrounds located at 200 N Griffith Street.
El Dorado, KS, 67042

Follow us on Facebook!
@BlackGoldShow

Entry Details

- ❖ **ONLINE ENTRY ONLY – even day of the show! Pre-Entry NOT required but you will have to enter and pay on-line at the show.**
- ❖ Everyone must check-in at the registration table upon arrival to receive cards and finalize weights.
- ❖ Enter online at:
<https://showman.app/shows#/black-gold-spring-show>
- ❖ Entry Fees: \$25 per head (No late Entry Fee)
- ❖ Showmanship: \$5/species – **pay at the gate!!**
 - Grand wins 60%
 - Res. Grand wins 40%
- ❖ \$50 deposit for pen use. Deposit will be returned upon inspection at conclusion of show.
 - No pens allowed to be used without deposit.
- ❖ Butler County Youth - \$15/hd/species
 - Only 1 Butler County Class/species
- ❖ \$200 cash prize for Grand Champion Market and \$100 cash prize for Reserve Grand Champion Market.
- ❖ \$100 cash prize for Champion Breeding Goat and Ewe. \$50 cash prize for Reserve Grand Breeding Goat and Ewe
- ❖ Cash prizes for each class
- ❖ Banners for Grand and Reserve Grand Market and Breeding Animals.

Check-In Information

- ❖ Trailers may arrive beginning at Noon Saturday
- ❖ Registration opens at 6:00 a.m. Sunday
- ❖ Swine checked-in by 8:00 a.m. (Show at 9 :00 a.m.)
- ❖ Sheep & Goats checked-in by 10:00 a.m. (Sheep show 11am or 30 min after swine show. Goat show 15 min after completion of sheep show)

RULES AND REGULATIONS

1. Butler County Black Gold Committee, Butler County 4-H, Butler County Extension Council, and the Butler County Fair Board are not responsible for any accidents.
2. Open to all current 4-H/FFA members 18 years and younger as of January 1, 2024. Out of State exhibitors are welcome!
3. All males must be castrated.
4. All animals must be owned and shown by the exhibitor & free of clinical signs of infestations or contagious diseases, infections and sickness.
5. Only one animal per exhibitor in Butler County classes.
6. **NO** bedding allowed in the barns.
7. Show from your trailer. A \$50 deposit/pen will be required the day of the show if you wish to stall in the barn. The deposit will be returned upon inspection of the designated pen being cleaned.
8. Watch Facebook for updates.
9. Declare your own weight by respective registration close times.
10. The show committee reserves the right to resolve all questions not covered in the rules, request to see registration papers, a weigh back, etc. and their decision is final.
11. Full fit for show for anyone who wants to fit!

PROSPECT SWINE

1. Prospect market animals may be either sex. Barrows and Gilts will show together.
2. Prospect market animals will show by breed but must have a minimum of 5 to make a breed class or will show as AOB.

PROSPECT SHEEP & MEAT GOATS

1. Does and ewes must be born after Jan. 1, 2023.
2. Prospect market animals may be either sex. Must have milk teeth.
3. Exhibitors may brace animals, but all four feet must be on the ground. Show director has the right to disqualify any violators.
4. All market and breeding animals will be shown by weight. There will be no breed classes
5. Market may not be shown in breeding and vice versa

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K-State Research and Extension is an equal opportunity provider and employer.

Bucket Calf Clinic

Butler County 4-H and Dr. Mikaela Sundgren are coming together to provide a Bucket Calf Clinic. Participants are welcome to bring their halter broke bucket calf with them. Vaccines will be available for a fee. Hands on experience makes this a great learning opportunity.

You are welcome to bring a sack dinner to eat during the “classroom” presentation.



Wednesday, May 8, 2024
6:00 - 8:00 p.m.
Butler County Fairgrounds
200 N. Griffith, El Dorado, KS

RSVP Here: <https://forms.gle/xgPfCJqY21gbxF9r5>



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COME & JOIN US FOR OUR

MINI FAIR

THURSDAY, MAY 23RD **BUTLER COMMUNITY/
4-H BUILDING
200 N. GRIFFITH
EL DORADO**

06:00PM - 08:00PM
SET UP BEGINS AT 5:30 P.M.

FREE ENTRY

Events

Horticulture Judging, Show and Tell, Club Booths,
Favorite Foods Contest, Clover Clink (Bring Your
Quarters!), Livestock Skill-a-Thon, Water Balloon Toss
(Cash Prizes!)

Please Fill Out This Form For Pre-Entries and Club Booths

<https://forms.gle/ZHsTfnG7Adr148jP7>

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