

David Hallauer
District Extension Agent, Crops & Soils

Soybean Gall Midge

A news article recently hit my inbox referencing 'orange maggots swarming' into Northeast Kansas soybean fields. It *sounds* concerning, and while Soybean Gall Midge *can* be a pest of significance and can't be ignored, it also isn't likely to be the orange swarm noted in the headline. To date they have been found at low levels in just Marshall and Nemaha Counties.

First noted in Nebraska (2011), it wasn't until 2018 that Soybean Gall Midge (SGM) became a significant pest, expanding into the soybean growing regions of South Dakota and Minnesota south into Missouri and now Kansas. Movement has been slow, requiring two growing seasons after confirmation near the Kansas Nebraska border for it to be confirmed here. Now that it's here, it *is* a pest worth scouting for, particularly along the Kansas Nebraska border.

The larval form of SGM overwinters near the soil surface. After pupation in early spring, adult midges (a small delicate fly with an orange abdomen and slender body) emerge and lay eggs on the lower portions of stems or bases of soybean plants. These eggs eventually hatch and if timing is right, larvae (first a cream white; later orange) infest stems around the V2 stage when natural fissures and stem cracks allow for entry. Adults don't damage plants, but the larvae feed within stems causing lodging and even plant death. Infestation can continue through the reproductive growth stages of the soybean with a couple of generations per season expected.

The greatest damage is expected along field edges. Heavily infested fields may exhibit complete losses from the field edge up to 100 feet in then reduced losses the further into the field you go. Infestations will show up as wilting or dead plants and individual plans will likely show a darkening and swelling at the base of stems with brittle stems breaking easily at the ground. The small orange larvae can often be found when stems are split.

Research is ongoing into control options with few good results. Insecticides, including seed treatments have been relatively ineffective. Crop rotation or planting alternative crops next to previously infested fields has potential - if possible. Research on hilling has shown mixed effectiveness and likely isn't a practical option for many growers.

Your best management is awareness and scouting. If you find field edge lodging or orange maggots in stems and think it might be SGM, contact me via any District Office (or dhallaue@ksu.edu) so we can monitor pest movement. The 2023 confirmations were all in the northern half of Nemaha County and while expansion is expected, it likely won't be the orange swarm the headline made them out to be. Let's hope not.

Want more information? Recent SGM research results, scouting tips, and movement maps are available at the Soybean Gall Midge Alert Network: https://soybeangallmidge.org/.



Ross Mosteller
District Extension Agent, Livestock & Natural Resources

Summer Pneumonia in Calves

It is often thought that stress associated with calving, calf processing, artificial insemination and other direct, close contact with the cow herd is over when they get turned out to grass. While it is generally true that the summer grazing season lets cows do "normal cow things", this is not a time to let your guard down on watchful management. One issue that can be a rapid problem, is summer or nursing-calf pneumonia. Let's take a look at this topic today.

Beef producers normally spot this condition when they notice a lethargic calf with droopy ears, reluctant to get up and measure a high fever. The calf may or may not cough or have visible difficulty breathing. You may think that respiratory issues are related to stress periods or changes in the weather, but it can become a problem on grass. This can especially be an issue when calves received lower quality colostrum than usual due to stress on the cows in the winter. Lower passive immunity from low quality colostrum can lead to increased health related issues, including summer pneumonia.

The most likely age for calves to be diagnosed with pneumonia is between 70-150 days of age, often in late summer for spring calving herds. It is especially important to keep very close tabs on calf health this summer, and if treatment is necessary, to intervene earlier rather than later. Speak with your veterinarian if you have questions regarding how to best approach vaccinating calves as well as what you'll want to use to treat summer pneumonia if identified it in your calves. Treatment is usually effective with this condition when administered early in the course of the disease.

Summer pneumonia is not common and is oftentimes very survivable with the right treatment. Studies show that about one in five herds will experience pre-weaning pneumonia, and within those herds up to 15% of the calves can be infected. One prevention strategy is to vaccinate the calves against bovine respiratory disease around three months of age, but that isn't a guarantee that they won't get sick. Some of this is due to young animals typically not responding as well to vaccines as ones that are closer to weaning age of six to seven months of age.

Certain weather events can increase the risk of developing summer pneumonia. Late spring blizzards or rain can deprive the calf of normal nursing patterns and produce chilling in calves. Late spring or summer high temperatures can produce heat stress in cows and calves, resulting in greater susceptibility to infectious agents. Also, dry, dusty conditions can increase susceptibility because the calves' normal distinctive, clearing defense mechanisms can be overwhelmed, which allows for pathogens to multiply and gain access to the lungs of young calves. Mixing groups together after calving, such as moving cow-calf pairs to pasture or mixing groups together for heat synchronization and artificial insemination procedures, can result in allowing the transmission of infectious agents.

If you are not sure if it is pneumonia that is occurring and the calf dies, a veterinarian can generally diagnose this condition with a high level of certainty during a post-mortem exam. Having these calves posted by a veterinarian can also rule out other possibilities and allow the vet to recommend the ideal course of action for future cases. During the summer months it is very important to get any dead calf that will be presented for a post-mortem exam to the veterinarian as soon as possible, because the carcass will decompose rapidly in hot conditions. As with any animal health challenge consult your veterinarian to determine the best treatment and prevention plans for your herd.



Laura Phillips
District Extension Agent, Horticulture

De-Thatch Your Warm Season Lawn

If you have a warm-season turf grass, like bermudagrass or zoysiagrass, now is the time to think about dethatching. Thatch refers to the layer of dead grass and roots that build up between your living grass and the soil.

Normally, thatch is not a problem. In fact, a healthy layer of thatch less than $\frac{1}{2}$ inch thick can provide insulation from temperature fluctuations and help conserve soil moisture. But when thatch gets more than $\frac{1}{2}$ inch thick, it can cause serious issues for your lawn. Thick thatch can harbor pests and diseases that attack your turf, and it can lead to poor root growth for your grass.

So, when the thatch in your lawn gets thick, it's time to dethatch. Because these operations thin the lawn, they should be performed when the lawn is in the best position to recover. For warm-season grasses that time is June through July. Buffalograss, our other common warm-season grass, normally does not need to be dethatched.

Thatch is best kept in check by power-raking and/or core-aerating. If thatch is more than 3/4 inch thick, the lawn should be power-raked. Set the blades just deep enough to pull out the thatch. The lawn can be severely damaged by power-raking too deeply. In some cases, it may be easier to use a sod cutter to remove the existing sod.

Bermudagrass will often come back if rhizomes remain in the soil. If not, you will need to start over with seed sprigs or plugs. If thatch is between one-half and a 3/4- inch, thick, core-aeration is a better choice. The soil-moisture level is important to do a good job of core-aerating. It should be neither too wet nor too dry, and the soil should crumble fairly easily when worked between your fingers. Go over the lawn enough times so that the aeration holes are about 2 inches apart.

Excessive thatch accumulation can be prevented by not over-fertilizing with nitrogen. Frequent, light watering also encourages thatch. Water only when needed, and attempt to wet the entire root zone of the turf with each irrigation. Finally, where thatch is excessive, control should be viewed as a long-term, integrated process (i.e., to include proper mowing, watering, and fertilizing) rather than a one-shot cure. One power-raking or core-aeration will seldom solve the problem.



Teresa Hatfield
District Extension Agent, Family and Community Wellness

Swimming Pool Germs: Precautions to Take

With the coming of the summer heat, the swimming pool is starting to look very enticing. The local public pool is an excellent way to beat the Kansas summer heat, but by taking some precautions, you could keep yourself and your family from getting sick. Swimming pools can be a lot of fun and a breeding ground for viruses and bacteria. Using basic hygiene techniques will make the pool enjoyable and safe for everyone.

According to the Centers for Disease Control and Prevention, people who go swimming when they have diarrhea can spread the illness-causing germs to others. If other people swallow the contaminated water, they can become sick. Chemicals (chlorine or bromine) inactivate or kill most germs in properly treated water. Still, the parasite crypto can survive for more than seven days.

The most common illness-causing culprits include:

- Cryptosporidium is a microgerm or parasite that can cause illness, including diarrhea. It can live in water, food, soil, or surfaces contaminated with feces from animals or people.
- Legionella is a bacterium that can cause severe pneumonia and spreads by breathing in water droplets.
 It is particularly dangerous to young children and older adults, and hot tubs have been known to spread this type of bacteria.
- Shigella is a type of bacteria that can cause diarrhea, fever, and stomach pain.
- Norovirus can cause diarrhea and vomiting.

To keep everyone healthy this summer, take the following steps when swimming: We share the same water in a public pool setting.

- Stay out of the water if you are sick with diarrhea.
 - If you have Crypto, don't return to the water until two weeks after your diarrhea stops.
- Do not defecate in the pool.
- Do not swallow pool water.
- Take kids on bathroom breaks and check diapers every hour.
- Change diapers away from the water to help keep germs out; wash your hands afterward.
- Stay out of the water if you have an open cut or wound (particularly from surgery or piercing). If you go in the water, use waterproof bandages to completely cover the cut or wound.
- Shower before and after swimming. Showering before entering the pool will remove sweat, oils, and other contaminants.
- Wash your hands for 20 seconds before eating, especially if you have been playing in or touching sand.
 If soap and water are unavailable, use an alcohol-based hand sanitizer containing at least 60% alcohol.
 Hand sanitizer might not be as effective when hands are visibly dirty or greasy, so wiping sand off before using it might be helpful.

By following these safety tips, your trip to the pool will be cool and relaxing. Good hygiene practices and proper pool maintenance will minimize the risks of developing a bad summer bug.



Cindy Williams
District Extension Agent, Food, Nutrition, Health and Safety

Exercise and Your Brain

If you want to take care of your brain, you need to first take care of your body. Research consistently shows that people who lead a healthful lifestyle, including regular exercise and good nutrition, are less likely to experience cognitive declines associated with the aging process.

So, why is exercise so beneficial for your brain? Studies suggest that exercise can protect your brain from shrinkage as it ages. Exercise can promote neurogenesis, the formation of new brain cells in the brain's hippocampus---the part of your brain associated with memory, learning, and emotions. Exercise also helps prevent many of the conditions linked to dementia, like obesity, diabetes, high blood pressure, and depression.

Exercise helps your brain in many ways that are beneficial at any age or stage of life. It can help you pay attention and focus, a benefit that is more noticeable after vigorous intensity exercise. It can also help your memory. Activities like walking, jogging, or gardening may help your brain's hippocampus grow. Some studies show this regrowth is even stronger if you enjoy the activity you are doing.

Physical activity is one of the best ways to treat depression and anxiety. It also helps improve blood flow, in part because it makes your heart and blood vessels stronger, which appears to help stop the buildup of plaques linked to dementia.

Have you ever taken a walk just to clear you mind? Exercise can improve your ability to organize and interpret information so that it makes sense. And, it helps you sleep better. Exercise can help you manage mood swings, wind down at bedtime, and establish a healthy sleep-wake cycle. A restful, seep sleep helps revitalize your brain and body.