K-STATE Research and Extension | Meadowlark District

September 19, 2025

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Another Round: More Problems from Fall Armyworm

This second round of fall armyworm feeding has not only caused more injury to already stressed stands but added some complications to the potential recovery process as well. If you're ready to 'move on' from feeding injury sooner than later, keep a few things in mind.

First, is the stand dead/dying or just dormant? That's one of the toughest questions to answer as we move forward. There's a chart shared at grazing schools showing when 90 percent of a grass plant's leaf area is removed, root growth stops for two to three weeks. In short, post feeding recovery may take more time than we'd like, making decisions this fall tough.

After significant fall armyworm feeding injury a few years ago, the K-State Plant Disease Diagnostic Lab and Frontier Extension District Agents Rod and Ryan Schaub looked at roots from damaged stands. See what they learned at: https://youtu.be/VKXFPK3lX1k . In short, if the roots held soil, they likely still had some life in them. If not, there was cause for concern. NOTE: these digs were done post dormancy so time will be needed before we can apply these findings to the current state of our stands. Still, it's a good reference to keep in mind for later evaluations.

Second, consider previous herbicide applications. Many herbicides require a plant back interval prior to reseeding. Whether applied with fertilizer this spring or included with an insecticide pass this summer, plant back intervals are important. This KSU eUpdate article is a good reference: https://eupdate.agronomy.ksu.edu/article/herbicides-for-cool-season-hayfields-and-pastures-damaged-by-fall-armyworms-661-3 .

Finally, what is the planting window for your intended forage? The window for planting cool season grasses typically closes around mid-September. That doesn't mean planting later won't work, but the intent of a planting 'window' is so a forage has time to germinate and grow to a point where it has ample leaf area to replenish root reserves prior to dormancy. If it does not reach that leaf area needed (three to four leaves minimum), it may lack enough root energy to survive the winter and grow next spring. Knowing there may not be much to harvest next year if we wait until a spring planting window, it may be tempting to try and seed yet this fall. If you do, keep in mind these late season seeding risks. For a list of planting windows, see the Kansas Crop Planting Guide: https://bookstore.ksre.ksu.edu/download/kansas-crop-planting-guide_L818

None of the decisions about repairing damaged stands are easy. Multiple factors are at play and damage is going to be unique for every situation. Check out these resources (available in print form from any of our District Offices) for tips and drop me a line if you want to visit about fitting it all together. In the meantime, keep scouting. The last round of feeding didn't occur all at one time and this one won't either.

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Ross Mosteller
District Extension Agent, Livestock & Natural Resources

Pregnancy Toxemia

You are never too old to learn and don't always know when teaching moments will pop up. This past weekend I had the opportunity to listen to my daughter's last formal 4-H presentation at the Kansas State Fair. Prior to her talk, a young man gave a presentation on pregnancy toxemia and his experiences. Dr. Kelsey Bentley, K-State Sheep and Goat Specialist, also recently shared information on this topic with Extension agents on an update. I've dug in a bit on this topic and feel like it might be a good time to share as prevention, since we are in the traditional breeding season for small ruminants.

Pregnancy toxemia (ketosis) affects ewes or does during late gestation. It occurs more frequently in sheep than goats. Incidence rate is more common in either fat or thin animals that carry multiple offspring. The condition develops when the ewe or doe cannot ingest enough nutrients to meet both the glucose requirements of the growing fetus and her own body metabolism.

During early gestation, the dam's increased appetite is enough to encourage her to compensate for the increased nutrient needs. By late gestation however, the growing fetuses are taking up more space in the dam's abdomen, and she is often physically incapable of eating enough to meet her needs unless more nutrient-dense feeds are provided.

Besides multiple fetuses, health and management factors can predispose a pregnant ewe or doe to ketosis during pregnancy. For example, not enough feeder space will prevent timid individuals from eating their ration share. Lameness or other health issues may prevent affected animals from walking to feed or standing to eat. Any issue that causes a late-term pregnant doe or ewe to have reduced feed intake even temporarily—transportation, shearing, inclement weather, etc.—can result in ketosis.

If adequate energy is not available to the gestating ewe or doe, she can metabolize body fat to meet her own nutrient requirements. When fatty acids are metabolized at high rates, ketone bodies are produced, which can be dangerous at high levels. The condition where excess ketones are present in the bloodstream, known as ketosis, results in depression and anorexia until the ewe or doe becomes too weak to stand. Signs of pregnancy ketosis are initially subtle and include depression, lethargy, poor appetite, dull eyes, low fecal output, changes in behavior and general "slowness." As the condition progresses, affected animals may manifest tremors, circling, teeth grinding, blindness, wandering, star gazing and incoordination progressing to recumbency, coma and death.

Producers can take steps to prevent pregnancy toxemia by properly managing the weight of ewes or does throughout the year, and especially prior to breeding and during gestation. Ewes and does should be body-condition scored at breeding, as overweight and excessively thin ewes or does are at a higher risk for ketosis. Using ultrasound during pregnancy to determine fetal number, and animals gestating multiples being fed and managed differently than those with singles is a good strategy to minimize risk of toxemia. While it is acceptable for overweight ewes or does to lose weight during the first two trimesters, they should be gaining weight by the third trimester.

Feeding grains with increased energy density during the third trimester, or about six weeks prior to lambing or kidding, will help to prevent pregnancy toxemia. Providing higher quality hay is also a good idea for gestating ewes or does. Shearing ewes also makes it easier to monitor body condition and causes increased feed intake.

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Laura Phillips
District Extension Agent, Horticulture

Planting Fall Cover Crops

As you go over the garden checklist from last week, cover crops might stand out as a novel idea for your garden. On the surface, cover crops sound like extra effort, but their long-term benefits actually reduce your workload. After warm season vegetables die off, the soil in your garden slows down too. Without plants to cycle nutrients, store carbon, and prevent erosion, your soil can suffer. A barren garden also provides a perfect space for winter and early spring weeds to cause trouble. This is where cover crops come into play.

While different crops offer unique benefits, you will see positive impacts from any cover crop. Roots from cover crops prevent otherwise barren soil from eroding and allow for greater water infiltration. As they outcompete weeds for resources and create a shade canopy over the soil, they lower the need for herbicides and hand weeding. You will also reduce your need for fertilizers. Their roots prevent nutrient leaching and increase nutrient cycling. Additionally, when cover crops decompose, they add organic matter to your soil. Legumes in particular will move nitrogen from the air into your soil for your spring and summer plants to use.

Capitalizing on these benefits may be easier than you think. First you need to choose a crop. Ideally you will have more than one cover crop. We recommend choosing at least two species, ideally one legume and one non-legume. If you want to plant early spring vegetables, then oats, winter wheat, barley or grain rye are great options. They will go dormant in the winter and leave a small yet meaningful mat of decomposing organic matter for you in the spring. Field peas and oats are a good, reliable pair for those just starting out. Hairy vetch, a legume that produces long vines, pairs well with a small grain crop that it can climb on, like winter wheat, barley, or oats.

After you choose a crop, you should plant it before the beginning of October. To prepare for planting, remove existing garden vegetation, mulch, and debris. Then use a rake or garden fork to smooth and lose the top layer of soil. If your entire garden is not done for the year, you can still plant cover crops in the portions of your garden that have died off or stopped producing.

Once you have prepared the soil, check the weather. If possible, time the planting directly before a rain. You can sow them by scatting seeds across the garden (known as broadcast seeding) either with a broadcast seeding implement or simply throwing the seeds with your hands. Alternatively, you can mix the seeds with soil or compost, then spread the mixture evenly across the garden. Whatever method you choose, try to make distribution as even as possible. Follow the instructions that come with your seeds when deciding how much seed to use.

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Teresa Hatfield
District Extension Agent, Family and Community Wellness

Women's Nutrition for Menopause

For women, Menopause signals the end of a woman's reproductive years. This transition usually happens between the ages of 45 and 55. It is a normal part of aging, but it can be challenging. The hormonal changes triggered by the decline of estrogen and progesterone can lead to a variety of symptoms and health risks. Getting proper nutrition can help manage changes and support good health.

A woman enters Menopause after 12 consecutive months without a menstrual cycle. Up to this point, she may have experienced perimenopausal symptoms, including hot flashes, night sweats, mood swings, memory issues, weight gain, and an increased risk of heart disease and osteoporosis. Not all women experience all these symptoms; the occurrence of symptoms varies.

Symptoms may be relieved by eating a healthy diet. Proper nutrition, including calcium, vitamin D, magnesium, and omega-3, can help support bones, improve sleep, and help with hormone fluctuations.

Calcium and vitamin D are essential to maintain the strength and thickness of bone. Good sources of calcium include dairy products, soy, and leafy green vegetables (kale, broccoli, collard greens). Sources of vitamin D include eggs, fish, fortified dairy products, fortified orange juice, and mushrooms.

Magnesium can help reduce symptoms related to sleep disturbance and muscle cramps. Good sources of magnesium include avocados, beans, peas, dairy products, bananas, raisins, leafy greens, nuts, pumpkin seeds, potatoes, and whole grains.

Omega-3 fatty acids can help support heart health by reducing inflammation. Good sources include fish, nuts, seeds, flaxseed, canola oil, and fortified foods.

Remember to try to get your vitamins and minerals from whole foods. You can begin by filling half your plate with non-starchy vegetables, and choose lean protein sources such as poultry, fish, and beans. Also, choose healthy fats such as olive or avocado oils.

Menopause is a significant life change, but by choosing healthy food options, you can seek to manage symptoms and reduce health risks. Please consult your healthcare provider to learn about healthy choices during Menopause.

Resources: CDS, NIH

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

Safely Preserving Chocolate Sauce

During the months of fall, many home food preservers give thought to delicious holiday gift-giving ideas. Recipes for home canned chocolate sauces abound, and what could possibly say "Happy holidays" more than chocolate, right? Unfortunately, home canning chocolate sauce can be dangerous!

According to the National Center for Home Food Preservation, home canning chocolate sauce is unsafe. Chocolate sauces are low acid recipes and have been linked to botulism poisoning. Recipes that use the boiling water canning process for chocolate sauce are risky, and there are NO science-based, tested recipes for chocolate sauce canned in a pressure canner. So, what options do you have?

Freezer chocolate fudge sauce

- ½ cup margarine or butter
- 3 squared (3 ounces) unsweetened chocolate
- 2 ½ cups sugar
- Pinch salt (optional)
- 1 can (12-ounce) evaporated milk
- 1 teaspoon vanilla

1. Melt the margarine or butter in the top of a double boiler. Add the chocolate and melt it, stirring constantly. Add sugar gradually, ¼ cup at a time, while stirring. If desired, you can add the salt. Then stir the evaporated milk in gradually and add the vanilla.
2. Cook the sauce for about one hour or until it reaches your desired thickness, stirring occasionally. Pour it into clean, warm jars, or similar freezer-safe containers. Allow the sauce to cool at room temperature for one to two hours. Seal and freeze. The sauce should remain soft enough to spoon out portions while frozen.

Source: National Center for Home Food Preservation, "Ball Complete Book of Home Preserving.