K-STATE Research and Extension | Meadowlark District

May 31, 2024

David Hallauer
District Extension Agent, Crops & Soils

Soybean Pests – Pillbug

Two soybean pest related news articles were distributed this week by the K-State Research and Extension news service. One was picked up by multiple news outlets with one headline suggesting crops were being devoured by the swarming of 'orange maggots'. The other was about pillbugs (otherwise known as the Roly Poly). Want to guess which one likely makes you stop and take a second read? NOTE: it's not the one that sound the most menacing…

To be fair, Soybean Gall Midge *is* a serious soybean pest. It *can* do damage and *has* been an issue across northern portions of the western soybean growing region. Our Nebraska neighbors have reported significant damage issues associated with Soybean Gall Midge, and while we *have* seen it in Kansas, large field wide issues have yet to be noted. So, while it is an important pest (one we'll discuss next week), a more 'current' pest of instance is the pillbug.

Pillbug injury has been noted this spring predominantly in south central Kansas and is likely associated with recent soaking rains in that region of the state. While we haven't seen it on a widespread basis here, some slight stand losses likely attributable to pillbug have been noted.

Pillbugs aren't generally a problem for us because our soils typically drain fairly well. Unless we see excess rainfall that keeps moisture in the soil surface or even areas of a field that don't dry out as quickly, pillbugs are likely not going to be an issue. They need a moist habitat to survive and in hot weather tend to move to areas that can provide dark/damp conditions.

Under the right circumstances, however, that combination of dark and damp could come from crop residue. Long time K-State Research and Extension Field Crops Entomologist Dr. Jeff Whitworth noted an increase in pillbug damage some years back as higher residue and no-till production systems increased. The conditions these productions systems encourage – while often good for the crop - is perfect pillbug habitat with heavy residue keeping the surface cool and moist. Under these conditions, pillbugs can be prolific, with each female producing up to 100 eggs during a reproductive period for as many as one to three generations per year. Since the pillbug hatching period often coincides with soybean planting, germinating seeds are often easy feeding, sometimes resulting in plants being clipped off just above the soil surface.

Foliar insecticide applications are a possibility, but Whitworth notes potential efficacy challenges with them due to interception by soil surface residue. Said residue can keep the insecticide from reaching the soil surface where pillbugs are feeding, limiting control.

If insecticide applications are being considered, first evaluate the stand. In many cases, limited feeding might be tolerated, particularly when good crop growing conditions might 'chase' pillbugs into hiding. If damage is found, do some stand counts to determine if plant damage is heavy enough to warrant treatment.

If you've noted soybean stand losses and weren't sure what they were from, pillbugs are a possible culprit (you'll likely have to sweep away the residue to find them…) For additional information on pillbugs, including pictures of feeding injury and management considerations, visit:
https://bookstore.ksre.ksu.edu/download/pillbugs-kansas-crop-pests_MF2855

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Ross Mosteller
District Extension Agent, Livestock & Natural Resources

Diagnosing Lameness in Pasture Cattle

Dr. A.J. Tarpoff, Extension Beef Veterinarian, shared in Beef Tips an article related to an issue that seems to creep up every summer during the grazing season - Lameness. Rather than recreating the wheel, it seems timely to share excerpts from this article today. Hopefully, everyone can avoid lame cattle, but if not, it is important to observe what might be going on.

The effects of lameness may show themselves by decreased fertility and performance, weight loss, and increased labor and medicine costs. It has been estimated that 88% to 92% of lameness in cattle stems from the foot. Below is a review of some of the common causes of such problems and the key differences between the clinical signs. It is a good idea to contact a local veterinarian to create a treatment plan for these conditions prior to the grazing season.

Lameness with swelling. The first way to determine the cause of lameness is to observe obvious swelling. The swelling most commonly affects the lower limb, indicating the area of inflammation just above the hoof. It is important to distinguish if the swelling is symmetrical (equal on both sides of the foot) or asymmetrical (only affecting one side). Swelling also may affect single or multiple joints in both calves and cows. Footrot is a common disease that occurs in pasture cattle. It is a bacterial infection of the foot that manifests itself with symmetric swelling encompassing the lower limb just above the hooves. Upon closer inspection, producers will notice a crack in the skin between the hooves and a foul pungent odor. Chapping and cracked skin in the interdigital space often occurs during drought conditions.

Single-sided or asymmetric swelling of the foot often indicates a more serious condition in cattle. This type of clinical sign often is the result of deep structural issues. Puncture wounds, sole abscesses, stone bruises or chronic infections can cause single-sided joint, bone or tendon infections. Extensive footwork on a tilt table or under sedation often is needed in these cases. Single or multiple joint swelling with lameness also can be observed in pasture settings. In calves, this is often the result of septic arthritis, which is a bacterial infection of the joints. In very young calves, it can be the aftereffect of navel ill or from bacteria that get into the bloodstream. It is not uncommon to see this condition a week to 10 days following a bout of respiratory disease with some pathogens as well.

Obvious lameness to one or more limbs with no noticeable swelling often can be challenging to diagnose. One of these conditions is called hairy heel warts, also known as digital dermatitis or strawberry footrot. These animals often display obvious lameness and will attempt to walk on the “tippy toe” of the foot. Upon closer observation, wart like growths or bright red scab lesions can be seen below the dewclaws and above the heel bulbs of the foot. The last condition, toe tip necrosis, is seen more commonly in newly arrived stocker calves, especially in those sourced from high-moisture environments that cause soft soles. These animals often appear with shifting lameness of the back legs. They usually will stand in strange orientations to protect and get pressure off the damaged toe. The rear, outside hooves are most often affected.

Lameness can be challenging to diagnose in field situations, but understanding the subtle differences will help with proper and timely treatment. Producers should consult a veterinarian for potential treatment or course of action if these situations occur. Each type of lameness has different protocol for treatment. It is especially important to discuss with your veterinarian any non-responsive lameness issues following treatment. Further diagnostics and treatment may be needed in these situations.

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Laura Phillips
District Extension Agent, Horticulture

Become a Master Gardener

Calling all gardeners! This September the Meadowlark District will resume our Extension Master Gardener (EMG) program. If you love to garden, or if you have never gardened but always wanted to, this is the program for you.

The Extension Master Gardener program, or EMG, is a staple of K-State Research and Extension. The program offers extensive horticulture training on topics ranging from lawn care and to soil fertility, to common plant diseases. These topics are supplemented with hands-on gardening practice and volunteer work. Beyond the learning experiences, EMG programs actively work to embed themselves in their communities and create collaborative and welcoming environments.

The EMG training runs from September through November with a total of 40 hours of training. Each session is taught by different specialists from K-State who share their expertise with our groups. All trainings are recorded and posted online for those who cannot participate in real time. After training, all Master Gardeners complete 40 hours of volunteer work, focusing on educating and inspiring others in their community.

To learn more about our EMG program, you can attend one of our EMG informational sessions. Upcoming informational sessions include:

- June 10th at 5:30pm at the Mary Cotton Public Library in Sabetha
- June 12th at 5:00pm at Stonehouse Gardens in Oskaloosa
- June 13th at 5:30pm at the Seneca Free Library
- June 21 at 5:00pm at the Nortonville Public Library

There will be additional informational sessions in Holton and Perry scheduled soon. You can email lauraphillips@ksu.edu to get updates on future informational sessions in Jackson, Jefferson, and Nemaha Counties or request more information.

Teresa Hatfield
District Extension Agent, Family and Community Wellness

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No news article this week.

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

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