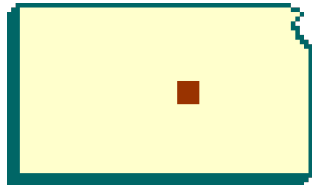


# McPherson County



K-State Research & Extension  
600 West Woodside, McPherson KS 67460  
620-241-1523 FAX 620-241-3407  
[www.mcpherson.ksu.edu](http://www.mcpherson.ksu.edu)  
**SEPTEMBER 2019**



## Ag News

**Shad Marston**  
**County Extension Agent**  
**Agriculture and Natural Resources**  
[smarston@ksu.edu](mailto:smarston@ksu.edu)



*Every late summer, I participate in the McPherson County Fall Crop and Tillage Tour. On this tour, we stop and chart the crops planted, tillage and conservation practices at 100 intersections throughout the county. I'm sure some of you saw us stopping and checking out your fields as we charted the data on a computer. With that said, I get to see what's going on outside my office and take a look at the current conditions across our county and how each producer attends to his ground. With the ever changing weather conditions and patterns we have had, it is amazing to see how different farmers can adapt and continue to be great stewards of the land we live on. It is interesting to see the different farming strategies that are taking place now verses when I grew up on the farm some 50 years ago. As you all know, we are not making more land, actually it is just the opposite. Farmers now, have to do more with less, imagine that. With that, producers will have to be more efficient and find better ways to increase yields plus save our soil, water and natural resources. It will be up to the farmers to continue to feed the world and it all continues right here in McPherson County.*

### Pre Plant Wheat School

We had a great turn out for our Pre- Plant Wheat school on Monday night. Over 110 producers attended our program along with our ladies' program as well. Tristen Cope from Marion County Research and Extension came this year to present our ladies program covering Time Management. I want to thank Dennis Friesen for cooking our brats and American AgCredit and Central Prairie Coop, Dale and his wife Jolene and Landon Shaw of First Bank Kansas for serving our meal. I would also like to thank all the sponsors for covering our meal costs again this year. Sponsors for this event were: Ag Seeds, LLC, American AgCredit, Ag360 Insurance, Central Prairie Coop, Citizen's State Bank\Home State Bank, Cooperative Grain and Supply, First Bank Kansas, Nutrien Ag Solutions, and People's Bank & Trust. We had four K-State Wheat specialists talk on soil fertility, wheat variety selection for McPherson County, cleaning, seed treating and germination testing our seed wheat. In addition, the planting date, planting depth and seed rates were also discussed as they are a very important part for maximizing yields and establishing a successful wheat crop.

## Timing Silage Harvest

We're now well into August and that means silage harvest is drawing near (as long as the ground will hold). Corn and sorghum development and maturity is highly variable this year due to all the problems with spring rains. If you always chop silage on about the same date, how will that affect your silage? Harvest timing is critical for success and needs to be based on moisture content of the silage. Silage chopped too early and wetter than 70% moisture can run or seep and it often produces a sour, less palatable fermentation. Conversely, dry silage is difficult to pack adequately to force out air. This silage heats, energy and protein digestibility declines, and spoilage increases. If your silage usually steams during winter, it was probably too dry when chopped. Many corn hybrids are 60 to 65% moisture after kernels dent and reach one-half to three-quarters milkline. This guide isn't perfect for all hybrids, though, so check your fields independently. Research at K-State has established that harvesting sorghums in the mid- to late dough stage of kernel development optimized both silage yield and nutritive value. Others recommend to harvest at the soft-dough stage. Whichever you choose, it's important to know that sorghum kernels, like corn, become increasingly hard and less digestible as the plant matures. Generally, it is more difficult to judge proper plant moisture based on grain stage of maturity with sorghum silage than corn. A good way to handle timing of sorghum silage is to begin cutting when 80% or more heading has occurred and 50% of the grain reaches soft-dough stage. It may be tempting to delay harvest while waiting for whole-plant moisture levels to drop, but that is usually a mistake. Any advantage gained by lower moisture content will be offset by less digestible grain. In fact, it's generally a better idea to harvest your sorghum silage a little early rather than a little late. On average, once the milkline begins to move, corn silage dries down at a rate of 0.5% to 0.6% per day. Sorghum is a tad slower. Dry down is entirely dependent on the weather, though. Rain and cool temperatures can slow the pace while hot, dry weather may be as much as 1% per day. If you find yourself in a tricky situation or just want to make better silage, a little help from inoculants can improve things. While there is no clear, consistent way to predict when inoculants will be most effective, typically, inoculation hastens the fermentation process, reduces face spoilage and can save you about 5% in storage losses. Inoculants consistently improve wet silage, especially sorghums. If you start chopping early enough to prevent silage from being too dry at the end, inoculants should help.

By taking all of this into consideration and chopping your silage at the proper time this year, the outcome will be better feed and better profits.

## Volunteer Wheat Control: Protecting Kansas Wheat

Wheat in the Great Plains is often plagued by complex of viral diseases including wheat streak mosaic virus, High Plains virus, and Triticum mosaic virus. As we move toward planting season, it is helpful to have a few timely reminders about ways to reduce the risk of disease problems in 2020.

There are several things producers can do: delay planting dates as long as feasible, control any significant stands of green foxtail and barnyard grass near fields that will be planted to wheat, and plant wheat varieties with resistance to wheat streak mosaic virus (Joe or Oakley CL) or to the wheat curl mite (Byrd, Langin, TAM 112, T-158, etc.). However, getting good control of these virus diseases starts primarily with controlling volunteer wheat, especially after the recent rainfall events. Control volunteer wheat soon in order to protect the wheat crop planted this fall.

Volunteer wheat within a mile or more of a field that will be planted to wheat should be completely dead at least two weeks before wheat planting. This will also help control wheat curl mites, Hessian fly, and wheat aphids (bird cherry oat aphids and greenbugs, etc.) in the fall.

## 20<sup>th</sup> Annual KSU Beef Stocker Field Day

Date: Thursday, September 19  
Time: 9:30 AM  
Location: K-State Beef Stocker Unit  
4330 Marlatt Ave, Manhattan, KS

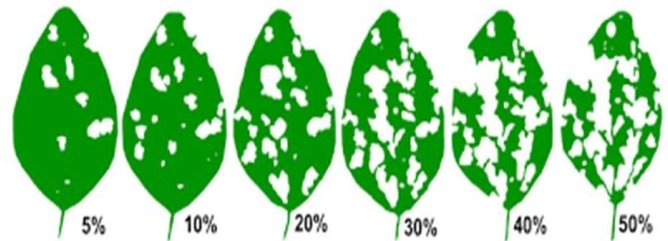


The 20th annual Beef Stocker Field Day starts with registration and coffee at 9:30 a.m. and the program at 10:15 a.m. Attendees will have a chance to win door prizes, including a fishing trip, ATV sprayers and more. The day will conclude with an old-fashioned Prairie Oyster Fry and Call Hall ice cream. Pre-registration is \$25 and due by September 10. For complete details and registration, visit [www.KSUbeef.org](http://www.KSUbeef.org). For more information, contact Dale Blasi ([dblasi@ksu.edu](mailto:dblasi@ksu.edu); 785-532-5427).

# Scouting Soybeans for Insect Pests

Soybean fields are reaching that critical point of development as they progress through the reproductive stages. This time of year the insects can develop in large populations, with a wide diversity. Determining when those insects need to be controlled by an insecticide can be difficult. This article is a brief guide to help you define the damage you are seeing and determine when it is the correct time to treat. First off you need to determine what insect or multiple insect species is causing the damage. Some people will use sweep nets to catch bugs by brushing the net across the plant in a sweeping motion. The nice thing about a sweep net is you have captured the insect which allows you to get a good look at the insects. While a sweep net is good for identifying insects it is not a good tool to quantify how many insects are present. To calculate population numbers, take a small area of a row and hit the plants multiple times to knock the insects off the plant. Then you can determine how many insects you are dealing with over that area. Some people lay down a white cloth between the rows to make the insects stand out. You will need to sample multiple times in various locations to determine the population across the whole field, as insects do not tend to be uniformly dispersed. The size of an insect is an indicator of the stage of development. Small worms present will take longer to cycle out versus larger ones that have already completed much of its life cycle. Most of the feeding an insect does will occur later in its development. It is also significant to note when you see dead worms. In some species like green cloverworm, a fungus can set in, sometimes controlling the population before treatment is warranted. Walking the field, you are most likely to find several species of insects. How do we determine if a treatment is justified? It all comes down to a judgment call based on what insect population is currently there, where on the plant they are feeding, and how much damage has already occurred. It is the cumulative effect of the entire insect population in the soybean field to estimate the loss of yield. The thresholds for treating depends on species but many include both insect populations as well as the damage present on the crop. Determining damage is quite deceiving when you are talking about defoliation. A soybean plant can lose a very large amount of leaf tissue before it becomes detrimental to the production. Prior to reproductive stages a soybean can withstand up to 30% leaf-feeding before treatment is justified. Now that soybeans have entered reproductive stages of growth a leaf loss of 20% is treatment threshold because plants are producing less vegetative tissue and putting energy into producing pods.

When feeding on the pods begin the timing becomes critical, at that point the insect is directly influencing yield. One pod per plant is the standard threshold people use. To figure the loss of your field with this calculation. 1 pod per plant cost of a field with 100000 plants, 2.5 seeds/pod, 3000 seed/# and soybean price. 1 pod/plant x 100000 plants/ac x 2.5 seeds per pod = 250000 seeds / 3000 seeds/# = 83.34#/ac or 1.39Bu/ac x \$7.84/bu = \$10.90 an acre loss. You can change the numbers to fit your field and the fluctuating price.



**Bean Leaf Beetle** is a 1/4 inch Red to light tan beetle similar to a lady beetle with six spots black spots on their back. Most years require 50 beetles per foot of row to cause too much defoliation though also can feed on pods early in development.

**Thistle Caterpillar**, the larval form of the painted lady butterfly, a brown to black with yellow stripe caterpillar has spiny hairs across the body. Thistle caterpillars will cause webbing of leaves where they seem to take refuge as they eat and then pupate. Treatment is recommended if the defoliation will exceed 30% during soybean vegetative growth and 20% during soybean reproductive stages.

**Garden Webworm**, a green worm normally with noticeable stripes and 3 dark spots on the side of each segment of its body. Causes webbing at the top of the plant and matures about 1-inch long. Treatments are warranted when the defoliation is 20% during reproductive stages of growth.

Garden Webworms have been out in very high numbers this year, particularly in wheat stubble fields where they have completely skeletonized whole fields of pigweeds. I know of several instances of webworms in soybeans being targeted and had to be treated.

**Green Cloverworm**, a light green worm with three pairs of stripes, it has three leg pairs in the middle of the body with a pair of legs at the end of the body. The easiest way to identify them is how they really wiggle when disturbed. Thresholds of green cloverworm are high 10-12 per foot of row and 30% defoliation soybean plants as they tend to just feed on leaf tissue. Soybean Podworm (corn earworm or sorghum head worm) Generally they are light brown in corn though most podworms I have found in soybeans are light green in color. The head tends to be tan in color with alternating light and dark stripes running the length of the body and spots. Micospines or small hairs can be seen on mature larva is a distinct characteristic that is not seen on other worm species.

**Podworm** as the name suggests feed on pods as well as leaves making the threshold less. 1 worm per foot of row is the threshold. I have not found podworm in soybeans yet this year though should be on the lookout as they have been present the last few years and earlier generations in corn are thick this year.



## ***Scouting Soybeans for Insect Pests (continued)***

**Stinkbugs** are generally green or brown large shield-shaped insect with sucking mouthparts. Stink bugs can cause shrunken or deformed seeds from feeding on pods in early in development as they are tender and moist. Treatment levels are reached when you find 10 bugs in 30 feet of row.

**Soybean Aphid** is a yellowish aphid that can populate in large numbers very fast with the correct environment. The environment that they prefer is around 80-degree F which has limited their development in most years. Though soybeans aphids have been found in Kansas every year since 2002 only a few times have the conditions been conducive enough to warrant spraying. Soybeans aphids have been found in Riley county this year.

Other Species like grasshopper, woollybear caterpillar, and yellow striped armyworm can also be found though I have not witnessed large populations recently. Additional resources to identify insect pests you can go to the KSU entomology web page. The second is a link you can find from the entomology web page with insecticide information, and the last link to purchase an excellent book for reference Crop Insects of Kansas put out by the department of entomology: \$11.40 <https://entomology.k-state.edu/extension/insect-information/crop-pests> <https://www.bookstore.ksre.ksu.edu/pubs/MF743.pdf> OR <https://www.bookstore.ksre.ksu.edu/Item.aspx?catId=236&pubId=13159>

## **Fall Lawn Care Tips for a Beautiful Lawn**

Once fall arrives many are tired of mowing our lawns and we just want to put off lawn care until the spring. Although many of us don't realize that fall lawn care is the best time to help improve your lawn. Here are a few lawn care tips that will help you to get your lawn into its best shape for the spring season.

### **Mowing**

Fall lawn care requires that you lower your blades by about an inch from the height that you set during the summer months. This will allow you to get rid of any weed seeds and get more air into the soil. It is also a good idea to use the mulching option if you have it on your mower, by mulching the horde of leaves on the ground you can add a great fertilizer to your lawn.

### **Aerate**

You will have the most benefit from fall lawn care if you aerate in the areas that have the highest traffic. Areas with a lot of foot traffic become compacted and air can't get to the grass roots which cause trouble when the grass tries to grow. This is what leads to bare patches in a lawn. Basically with aerating you are punching holes in the soil so that water and nutrients can spread all the way down to the roots. When it comes to aerators there are several options to choose from. The manual option is special shoes that you can strap over your footwear with large spikes in the bottom. Then you just walk around your lawn in order to aerate it. Then there is a larger manual aerator with four hollow tubes on a horizontal bar that you push into the ground, this option is probably the most labor intensive. Once you are done you can leave the large plugs removed from the lawn as organic matter or compost. To help fill the holes once you are done spread a layer of compost, fertilize and water.

### **Reseed**

After aerating and de-thatching if necessary then you will need to reseed. You will have nice holes and fresh compost in your yard which is an excellent time for seeds to take a hold. Fall lawn care is also the best time for grass growth since there is less weed competition. After spreading the new seedlings, you need to remember that the key to fall lawn care is to keep them moist.

### **Water**

The most important of all the fall lawn care tips is water. In the fall your lawn needs just as much water as it does in the summer months. Watering allows the new seedlings root systems to become established and fertilizers will be able to sink into the ground better.

### **Fertilizing**

In general, turfgrasses should be fertilized when they are actively growing. So cool-season grasses, such as Kentucky bluegrass, tall fescue, and perennial ryegrass, should be fertilized primarily in the fall. Warm-season grasses, bermudagrass, buffalograss and zoysiagrass, should be fertilized in late spring and/or summer. For cool-season lawns, most of the fertilizer should be applied in the fall. Fescue, bluegrass and ryegrass benefit most from fall-applied nitrogen applications. September is the most important time. N applied during September helps thicken the stand, and encourages development of a healthy root system. A November application (at about the time of the final mowing of the season) helps the turf build food reserves. This enables the lawn to green up earlier in the spring, without encouraging the excessive shoot growth that often accompanies early spring N applications. Doing fall lawn care only takes a few months and then you will be able to enjoy the benefits of a beautiful yard all year long.





K-State Research & Extension  
McPherson County  
600 West Woodside  
McPherson KS 67460

## RETURN SERVICE REQUESTED

## AGENT CONTACT INFORMATION

**Jana McKinney**  
County Extension Agent  
Family & Consumer Science  
[jmckinne@ksu.edu](mailto:jmckinne@ksu.edu)

Radio: Wednesday, 7:25 a.m.

**Lindsey M. Mueting**  
County Extension Agent  
4-H Youth Development  
[lmueting@ksu.edu](mailto:lmueting@ksu.edu)

**Shad Marston**  
County Extension Agent  
Agriculture and Natural Resources  
[smarston@ksu.edu](mailto:smarston@ksu.edu)

Radio: Friday, 7:25 a.m.



K-State Research and Extension is an equal opportunity provided and employer. K-State Research and Extension is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision or hearing disability, or a dietary restriction please contact Lindsey Mueting at 620.241.1523.