Scouting for SCN – Time to Get Digging
Greg Tylka, ISU Professor of Plant Pathology

Iowa’s early planting season means that pests like the soybean cyst nematode (SCN) also are off to a quick start this year, which could result in a greater risk of severe damage from SCN throughout the growing season. This nematode is a major yield-reducing pathogen of soybean and is widespread across Iowa and other Midwestern states. Research conducted in recent years indicates that many fields have not been checked for SCN.

Quick and cheap check for SCN
One of the easiest and cheapest ways to check a field for the presence of SCN is to dig soybean roots with a spade, shake the soil from the roots, and look for small, white, round objects on the roots.

SCN visible on roots dug through mid August
The SCN females fade from white to yellow, then become tan and eventually brown within a few days to a week as the female dies and the body wall hardens to form a cyst around the eggs within. It is almost impossible to see brown SCN cysts on soybean roots dug from a field with the unaided eye. Some white adult females should be apparent on roots of soybeans growing in SCN-infested soil no matter when the roots are dug.

Fields can be checked for SCN by carefully digging and observing roots through June, July, and into mid August. In warm summer soils, SCN can complete a generation in four weeks, ending with formation of new females on roots. The newly formed SCN females occur on younger roots and as the season progresses, those new roots are forming deeper in the soil and farther from the stem of the plant. Therefore, it is advised to dig deeper for roots in July and August to look for SCN females.

To view the complete article go to: https://crops.extension.iastate.edu/cropnews/2020/06/scouting-scn-%E2%80%93-time-get-digging
When mowing the lawn, what is the proper mowing height?

Kentucky bluegrass lawns should be mowed at a height of 2.5 to 3 inches in the spring and fall months. Mow bluegrass lawns at a height of 3 to 3.5 inches in June, July and August. A higher mowing height in summer helps to cool the crowns of the turfgrass plants, encourages deeper rooting and provides more leaf area for photosynthesis during the stressful summer months.

Mowing below the recommended range may scalp the turf and cause the turfgrass to deteriorate. Extremely low mowing heights decrease the total leaf surface area, carbohydrate reserves and root growth, creating a situation where the turfgrass plants are unable to produce enough food to meet their needs. This makes the plants more susceptible to drought, high temperature and wear injury. In addition, the bare areas created by a decrease in turfgrass density increase the likelihood of weed problems. Mowing too high can also create problems. Mowing above the recommended range reduces tillering and causes matting of the grass. Reduced tillering results in fewer and coarser plants, while matted grass creates a micro-environment that encourages disease development.

How often should I mow my lawn?

Mowing frequency is based on the growth rate of the turfgrass. Weather conditions, cultural practices (such as fertilization and irrigation practices) and other factors determine the growth rate of turfgrass. Kentucky bluegrass and other cool-season grasses grow quickly in spring when weather conditions are favorable. The growth of cool-season grasses slows in summer and then picks up again in fall. Fertilizing and irrigating the lawn on a regular basis promote turfgrass growth. In spring it may be necessary to mow every four to five days, possibly only once every one to two weeks in summer, with more frequent mowing again in the fall.

Should I remove the grass clippings when mowing the lawn?

When the lawn is mowed properly, grass clippings do not need to be removed or bagged. Small clippings filter down into the turf and quickly decompose, returning essential plant nutrients to the soil. Lawn clippings do not significantly contribute to thatch development.

Grass clippings may need to be bagged or raked and removed when mowing extremely tall grass. You may also want to bag the grass clippings and use them as a mulch in vegetable and flower gardens.

Is it a good idea to alternate the mowing direction when mowing the lawn?

Alternate your mowing pattern or direction each time the lawn is mowed. Repeatedly mowing the lawn in the same direction pushes the grass over rather than cutting it cleanly. Also, different mowing patterns reduce soil compaction and wear from the mower wheels.

Does it harm the grass to mow the lawn with a dull mower blade?

A sharp mower blade cuts the grass. A dull blade tears the ends of the grass blades. The damaged tissue dries out, giving the turf surface a whitish appearance. Also, the torn leaf tissue loses greater amounts of water and increases the possibility of disease problems. Sharpen the mower blade at least twice a year.
Slight increases in cash rental rates in Iowa
Alegandro Plastina, ISU Extension Economist

The most recent annual survey of cash rental rates for Iowa farmland shows that rates increased, on average, by 1.4% in 2020 to $222 per acre. This is the fourth year of relatively stable rates at levels around 18% lower than the historical peak reached in 2013 at $270 per acre (figure 1). In comparison, corn and soybean prices received by farmers in Iowa declined by 49% and 45%, respectively, since mid-2013.

AgDM File C2-10, Cash Rental Rates for Iowa 2020 Survey provides detailed results by county and crop. There was considerable variability across counties in year-to-year changes, as is typical of survey data, but 59 counties experienced increases in average rents for corn and soybeans. The report also shows typical rents for alfalfa, grass hay, oat, pasture, corn stalk grazing, and hunting rights in each district. The complete survey can be found at: https://www.extension.iastate.edu/agdm/wholefarm/html/c2-10.html

Different regions experienced different changes in cash rents: from a 4.6% increase in Crop Reporting District (CRD) 3 to a 2.4% drop in CRD 9. Northern and Central Iowa (CRD 1-6) have, on average, 21% higher cash rents than Southern Iowa (CRD 7-9).

Rents for low quality land increased the most
Not all land qualities have seen their average cash rents increase proportionately. High quality land experienced a 0.4% increase, from $256 per acre in 2019 to $257 in 2020.

Medium quality land experienced a 1.4% increase, from $220 per acre in 2019 to $223 in 2020.

Low quality land experienced a 2.7% increase, from $183 per acre in 2018 to $188 in 2020.

Setting rents for next year
Survey information can serve as a reference point for negotiating an appropriate rental rate for next year. However, rents for individual farms should be based on productivity, ease of farming, fertility, drainage, local price patterns, longevity of the lease and possible services performed by the tenant.

Two major factors with the potential to influence future cash rents are crop prices and land values, and they both suggest that absent any major change in the current outlook, cash rents might decline in 2021. Corn and soybean prices received in Iowa peaked in August 2012 at $7.90 and $16.80 per bushel, respectively. In March 2020, corn and soybean prices received by farmers in Iowa averaged $3.64 and $8.43 per bushel and have respectively accumulated a 54% and 50% decline from their peak values. Due to current and projected low crop prices, profit margins in corn and soybean production on cash rented acres are expected to remain very tight to negative for a seventh consecutive year, and tenants will likely be using profits generated in owned land to cover any negative profit margins on rented land.

The second major factor affecting cash rents is the return on investment for landowners. Ag Decision Maker data shows the evolution of the ratio of average cash rents to average land values in Iowa. It suggests that the average return on investment for landowners who cash rent their land to operators has followed a declining trend since the early 1990s, and it has stabilized at around 3% after 2010. Note that this ratio does not measure net returns because ownership costs, such as real estate taxes, are not taken into account in its calculation. However, it is indicative that landowners (whose goal is to obtain a reasonable rate of return on their real estate assets) will likely be reticent to accept lower cash rents in the future unless land values continue to decline. However, in a scenario of historically low and possibly declining interest rates, the opportunity cost for landowners would decrease and even lower rates of return on farmland might become acceptable. For the complete article visit: https://www.extension.iastate.edu/agdm/articles/plastina/PlaMay20.html
Heat affects each type of livestock differently, and is a significant factor in production and animal welfare

Each species of livestock reacts to heat differently. However, the common principle is to maintain good ventilation, provide shade and access to clean, cool water, and limit moving animals during the hottest hours of the day.

**Swine care**
Pigs do not have sweat glands, making them especially susceptible to heat stress, according to Jason Ross, director of the Iowa Pork Industry Center at Iowa State University. Swine producers commonly rely on cooling fans and evaporative cooling systems that help the animal to increase evaporative heat loss and stay cool, and keeping the system running at optimal levels is critical during periods of extreme heat.

Ross suggests producers make sure all controllers and fans are functioning properly, including any misters or cooling cells, and be sure that the backup generators are ready to operate, in the event of a power outage.

**Beef cattle**
Compared to swine, cattle can tolerate higher temperatures at lower relative humidity, because cattle can dissipate their body heat more effectively by sweating. However, cattle are more prone to stress when the humidity rises, and need the same level of care as other livestock.

Common solutions for cattle include access to clean, cool water, shade and good ventilation. Avoid moving cattle during the daytime and afternoon, when temperatures are at the highest, because the energy cattle expend while moving will cause even more stress.

This may be a good time to install some additional fans or water misting systems, or to make sure the systems you have are fully functioning.

**Dairy cattle**
Access to cool, clean water is vital for dairy cows during periods of high heat. A dairy cow consumes up to 50% of her daily water intake within an hour after milking, so providing fresh, clean water at the parlor exit is an excellent way to encourage water consumption.

Fans and sprinkler systems are commonly used on dairy farms, but must be properly installed and functional to provide the necessary air and water movement.

The idea is to soak the cow to her skin and turn the water off for a long enough period to allow the moving air to dry her. While drying, heat is removed from the skin during the evaporation process, cooling the cow. When people climb out of a swimming pool and experience a chill until their skin dries, they are experiencing the same process.

**Poultry**
Like swine, poultry do not have sweat glands and therefore cannot rid their body of heat by sweating. Birds are subject to heat stress when the humidity and air temperature rise uncontrollably. They often respond by panting, which may help, but also expends energy and requires the bird to consume more water, to account for moisture lost through panting.

Airflow and ventilation are key to managing poultry during hot weather. Producers also may want to feed at night, or after temperatures begin to fall.
Managing Herbicide-Resistant Waterhemp in Dicamba-Resistant Soybean
Bob Hartzler, Prashant Iha, ISU Extension Weed Specialist; Meghan Anderson, ISU Extension Field Agronomist

Numerous herbicides registered for postemergence use on Xtend soybean have excellent activity on important weeds of Iowa’s soybean fields. Unfortunately, herbicide resistance in waterhemp is widespread to the herbicide groups active on this weed: Group 2 (ALS inhibitors), 9 (glyphosate) and 14 (PPO inhibitors). It is difficult to track the percentage of fields with waterhemp resistant to these herbicides, but our estimates would be: Group 2: >95%; Group 9: >75%; Group 14: >50%. Thus, the repeal of the dicamba label leaves many farmers no effective postemergence herbicides for multiple-resistant waterhemp in Xtend soybean fields.

So what are the most effective options to manage waterhemp? At this time, Tavium plus Vapor Grip Technology (dicamba + S-metolachlor) is not affected by the court ruling since it received registration after the lawsuit was filed. While we are not aware of the supply of Tavium, we suspect Syngenta only has enough product for a fraction of Xtend acres. Most growers will probably be unable to get product for all their fields.

Of the alternatives available, we believe a Group 14 herbicide (acifluorfen, fomesafen, lactofen) has a better chance of controlling waterhemp than glyphosate due to the greater prevalence of glyphosate-resistant waterhemp. Group 14 herbicides should be applied as soon as waterhemp is found in a field, and a Group 15 herbicide (acetochlor, dimethenamid, pyroxasulfone, S-metolachlor) should be included to provide residual control after the POST application. Glyphosate or other appropriate tank mix partners should be included in the mix to broaden the spectrum of weeds controlled.

Preemergence herbicides appear to be providing effective control in most soybean fields at this time, but timeliness of application of the Group 14 herbicide will be critical. Spraying waterhemp between 0.5 and 1.5 inches in height is ideal. Follow all recommendations on the Group 14 label to maximize effectiveness, including carrier volume, nozzle type, spray pressure, spray additives, and sprayer speed.

Mechanical weed control is not a desirable option for most, but farmers with Xtend planted in 30” rows should consider the feasibility of interrow cultivation. Large farms probably can’t cover all their acres with a cultivator, but fields could be prioritized based on weediness.

Unfortunately, this court ruling came at a bad time for Iowa soybean farmers. There is no simple solution; hoping the decision will be reversed in time to use a dicamba product is not an effective strategy. Now is the time to determine what products are available and begin scouting fields to prioritize which fields need treated earliest. We have stressed the need for integrated weed management systems for several years, this is a shocking wakeup call showing how fragile our herbicide-based production system is.
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Calendar of Events

Following CDC and Iowa State University guidelines regarding the Covid 19 virus, our meetings and events are cancelled or postponed until further notice. We will keep you informed on future developments. Stay healthy.