COOPERATIVE EXTENSION SERVICE
HOME, YARD & GARDEN PEST NEWSLETTER
College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana - Champaign
Illinois Natural History Survey, Champaign

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Modified Growing Degree Days (Base 50°F, March 1 through May 24)

Station Location	Actual Total	Historical Average (11 year)	One- Week Projection	Two-Week Projection
Freeport	422	379	503	597
St. Charles	427	362	501	588
DeKalb	391	418	478	578
Monmouth	543	470	632	737
Peoria	569	506	659	767
Champaign	612	514	709	823
Springfield	731	576	837	957
Perry	725	544	820	930
Brownstown	704	632	815	942
Belleville	737	662	852	979
Rend Lake	792	717	914	1050
Carbondale	738	678	855	985
Dixon Springs	808	733	929	1063

Insect development is temperature dependent. We can use degree days to help predict insect emergence and activity. Home, Yard, and Garden readers can use the links below with the degree day accumulations above to determine what insect pests could be active in their area.

GDD of Landscape Pests
GDD of Conifer Pests

Degree day accumulations calculated using the Illinois IPM Degree-Day Calculator (a project by the Department of Crop Sciences at the University of Illinois and the Illinois Water Survey). (*Kelly Estes*)

Gypsy Moth Caterpillars Active in Illinois

Gypsy moths are among some of the most destructive forest pests in the United States ... did you know they were brought here intentionally? They were originally intended to be used to increase disease resistance in hybridized silk spinning caterpillars, but the gypsy moth escaped the industry and became established in natural areas. From there it has slowly spread throughout the northeastern states south to Virginia and west to the Great Lakes Region; and into Illinois.

Gypsy moth larvae are known as severe tree defoliators and can be a tremendous problem for forest land owners and managers. Currently, gpysy moth caterpillars are activie in northern Illinois. Oaks (*Quercus* spp.) are their preferred meal but they will feed on over 500 shrubs and trees. When large populations build up, 1000 egg masses per hectare, the damage can become quite extensive. This could lead to entire forests being stripped of their foliage. Healthy trees can usually withstand the loss of one flush of leaves, but if it happens continuously throughout the year in consecutive years it will mean almost certain failure; especially when coupled with other insect, disease, and environmental conditions.

The gypsy moth trapping program in Illinois is a cooperative effort between the Illinois Department of Agriculture and USDA-APHIS-PPQ. The goal of this survey is to determine the spread and dispersal of the gypsy moth in Illinois.

Illinois is considered a transition state and is part of the Slow the Spread (STS) program. STS is one of the largest monitoring and action programs in the nation targeting the Gypsy moth.

Information garnered from trapping this year will help make decisions for 2019. The Illinois Department of Agriculture has recently finished the BtK treatments of selected areas. These treatments target young gypsy moth caterpillars. A full description of this treatment can be found here (https://www2.illinois.gov/sites/agr/Insects/Pests/Documents/GMquestions%20on%20%20Btk.pdf).

Mature females lay egg masses in mid to late summer. Larvae emerge from the mass in the following spring (hatching generally occurs when most hardwood trees are starting to bud). Each larva can be from one to two inches long with hairs running down its entire body. They are grayish in color with five pairs of blue spots and six pairs of red spots on their body with yellow markings on their heads. They transform into the pupa stage in mid-summer and emerge as adults usually beginning in July. Male moths are light tan to dark brown with wavy bands and have a wingspan of about an inch. Females are almost all white with faint darker wavy bands on the forewings and have a wingspan up to two inches. Female gypsy moths do not fly and will typically lay their eggs near areas where they were feeding (including picnic tables, firewood, grills, and even cars). When these items are moved, these "hitchhikers" move with them!

As long as caterpillars are feeding, insecticide applications can be made. However, insecticides are more effective against younger caterpillars. Recommended insecticide sprays include acetamiprid, *Bacillus thuringiensis kurstaki*, clothianidin, diflubenzuron, indoxacarb, spinosad, and tebufenozide. Emamectin benzoate is also very effective as a trunk-injected insecticide against gypsy moth caterpillars. (*Kelly Estes*)

Cool-Season Perennial Grassy Weeds

I am often asked about controlling quackgrass and tall fescue. These cool-season perennial grasses can be difficult to eliminate from finer-textured, cool-season turfgrasses. Spring is the time of lush new growth for both most Illinois turf, as well as these unwanted grasses. If you haven't done so already, scout your landscapes for these weeds and plan your control tactics. First, let's talk about how to identify these two grassy weeds.

Tall fescue (*Schedonorus phoenix* [Scop.]) is a clump-forming grass that typically appears as a circular patch that can become wider from tillering. Short rhizomes (underground stems) may be present. The leaf blades are fairly wide. When tall fescue gets mixed in with a slower growing, finer textured turfgrass species, it becomes quite noticeable. Mowing can help to even out the height difference, but tall fescue's lower, light-colored stems and wide, dark green leaf blades that have a glossy lower surface often allow the spots to remain noticeable. Turf-types of tall fescue are often grown as turf.

Quackgrass (Elytrigia repens) is rapidly making ground wherever it can be found growing right about now. It spreads by

seeds and long, light-colored rhizomes and aggressively forms patches. Young plants can be hairy, which can make it easily confused with crabgrass, but quackgrass growth usually occurs earlier in the spring. To know for sure if what you have is quackgrass, look for the above-mentioned rhizomes and also long, clasping auricles at the base of the leaf; these finger-like projections are key identifiers for quackgrass. Crabgrass develops neither rhizomes nor clasping auricles.

Identifying grasses can be challenging! For assistance, check out *Identifying Turf and Weedy Grasses of the Northern United States*. This pocket-sized guide is available for sale at: http://pubsplus.illinois.edu.

Controlling these grasses can be challenging as well. Nonselective products such as glyphosate can be used to control both tall fescue and quackgrass. Multiple applications may be needed and turfgrass will be injured or killed.

Selective products have been available in the past, but have now been removed from the marketplace or the use restrictions on the labels have changed. At one time, turfgrass managers relied on sulfosufuron (Certainty) to control tall fescue growing in other cool-season turfgrasses, but cool-season grasses were removed from the label a few years ago. Any existing old stocks can still be used however. This winter, I discovered several discussions online where turfgrass applicators were suggesting that sulfosulfuron could perhaps still be used with a very loose interpretation of the label. I have cautioned applicators against this for fear that IDA inspectors would not share the loose interpretation. These applications are presumably broadcast in nature. However, it MAY be possible to use sulfosuron as a spot treatment. Applicators should carefully read and follow all label directions!

Also for tall fescue control, existing stocks of Corsair (chlorsulfuron) can be used. Additionally, this active ingredient, chlorsulfuron, is found in Telar XP and Chlorsulfuron 75DF which are used in industrial sites and roadsides, but not in managed turf areas. Purdue University recommendations mention spot treatments of these products. Could this be another loose interpretation of labels? Perhaps. Another consideration is that if you are going to spot treat anyway, it would likely cost less to use glyphosate than chlorsulfuron as there are many generic formulations of glyphosate in the marketplace.

Some applicators have mentioned that they have seen some control of quackgrass with mesotione (Tenacity) while controlling other grassy weeds such as nimblewill. Quackgrass is not listed on the product label. I trust that Syngenta tested their product on quackgrass but the level of control was not great enough to warrant label inclusion. Tenacity is safe for use on tall fescue meaning that it will not harm this plant. (*Michelle Wiesbrook*)

Peach Leaf Curl

Peach leaf curl is a fungal disease caused by *Taphrina deformans* and is one of the most commonly encountered diseases of peaches and nectarines, especially in home plantings. It primarily affects the foliage, but may also affect blossoms, young twigs and fruit.

Peach leaf curl overwinters as dormant spores in bud scales and bark crevices. The pathogen infects leaves as the buds begin to swell in the spring. Infected leaves become thickened, leathery, and will also be distorted and puckered. The distorted areas are quite noticeable because they will become pink, red, or purple in color. Once the fungus begins to produce spores the affected areas will turn grayish white and appear velvety. Infected leaves will eventually turn yellow and fall off of the tree. New leaves may be produced in June or July to replace the fallen leaves, especially in severely infected/defoliated trees.

If fruit becomes infected it will also be distorted and the infected area will lack peach fuzz making them look like it has been polished. As the fruit grows larger it will often begin to crack. Infected fruit will usually prematurely drop as well.

Peach leaf curl does not normally kill trees, but it may weaken severely infected trees. This can lead to infection by other diseases, increased chances of winter injury and a reduced crop the subsequent year. Fortunately, plants will only become infected one time during the growing season. Any new growth will not be infected.

There is nothing that can be done for trees infected by peach leaf curl this year outside of taking steps to maintain tree vigor (fertilizing, irrigating when needed and heavily thinning fruits to reduce demand on the tree). To prevent infections next year, apply a dormant spray of chlorothalonil, or a copper based product such as Bordeaux mixture to trees in in late fall after leaves have dropped, or very early spring before the buds begin to swell. The fungicides will kill spores on bark and buds and good coverage is important. Once buds begin to swell it is too late to prevent infection. When making pesticide applications make sure to read and follow all label directions. (*Ken Johnson*)

Making a Dog Friendly Lawn

A recent survey conducted by the American Pet Products Association found that 48% of the US population owned dogs. Unfortunately, these furry companions can be quite damaging to the landscape. As hardy as our lawns can be, they cannot seem to withstand a pet's frequent traffic, constant digging and excess urine. In this article, we will address lawn injury from pet urine and how to repair damaged lawns.

A dog's diet is rich in protein, that when broken down by the body produces nitrogen and salts as waste products. While supplemental nitrogen can be beneficial when applied in the correct amounts, e.g. fertilization, we have to be wary of concentrating high levels of nitrogen in one place. Excess nitrogen and salts can "burn" turfgrass resulting in brown, dead grass. With urine injury, sometimes referred to as "dog spot," the affected areas are roughly circular, and often surrounded by a border of lush, dark green grass.

The sex of the dog can make a difference with both the pattern of occurrence and severity of the spots. Males and females each deliver their urine to the yard differently. A female dog will typically squat and concentrate urine in one place resulting in the brown "dog spot." A male dog, if he lifts his legs, and does not squat, will tend to distribute smaller amounts of urine over multiple places as

he goes around marking his territory. Since males are not spraying a large quantity in any one location in the lawn, this behavior usually produces numerous patches of lush, dark green turf.

Dilution is a Solution

One potential solution is to dilute the excess nitrogen and salts deposited with the urine. Research has shown that watering the lawn within eight hours can help to prevent injury. We can achieve this by watering the spot immediately after they eliminate. However, this can be a bit tricky. The pet owner will need to be ready to dilute the urine either with a pitcher of water or with a hose immediately after the dog finishes their business. Alternatively, pet owners can time irrigation systems to dilute frequently used areas on a regular basis. Use this method cautiously. Overwatering a lawn can lead to additional turf problems.

Repairing the damage

Unfortunately, all grasses are susceptible to injury from pet urine. The saving grace is that there are some grasses that tend to bounce back from injury more quickly than others, making them a better selection for dog owners. Warm season grasses, such as bermudagrass and zoysiagrass, are options for owners in the southern portion of the state. These grasses grow vigorously through the summer and go dormant in the winter months. They spread with rhizomes or stolons, and are generally more aggressive allowing them to heal quickly from injury. Repairing warm season grasses may be as simple as applying supplemental watering to dilute the salts so that the turfgrass remains vigorous. Of the cool season grass species, tall fescue has been found to be more urine tolerant than others. Perennial ryegrass and Kentucky bluegrass are used often with tall fescue and the combination is adapted to tolerating some level of urine. Damage to any of the cool season grasses may require a more intensive repair. This may involve removing the dead patch and reseeding. Larger, severely damaged areas may require a complete renovation or replacement with sod. Fencing may be needed to protect these areas as they reestablish.

Understanding how grasses grow and reproduce as well as growing conditions will help to evaluate the condition of the lawn. Many lawns are a mixture of species of grasses. The time of the year and weather conditions play a key part in the overall health of the turf grass. A drought or hot summer can cause lawns to be more susceptible to injury from animal urine, due to the stress of the conditions not just the frequent urination. It is important to think about the health of the lawn before solely blaming the family pet.

Designated Elimination and Digging Zones

If you have the opportunity to work with a client that has or will be getting a puppy, this is the time to designate an elimination zone, i.e. a specific area for the dog to urinate it. Young dogs tend to catch on a bit quicker and will learn that this is the area that they should eliminate in. Older dogs can learn to eliminate in these areas as well, but the success rate might not be as high. To create this area you will need to establish good drainage, place items that will encourage them to use this area as a restroom, and design a place that is still attractive

in the landscape. Start by finding a location that is frequently visited and then prepare the area for adequate drainage. Suggestions for drainage material include sand and then a layer of pea gravel. From here it is the homeowner's choice to add mulch, the dogs preferred substrate or other items that will encourage their dog to focus their concentration in this area. Lawn ornaments like a bird bath, large rocks, or even a faux hydrant are useful as they encourage dogs to use this area. Since as a puppy they are encouraged to eliminate on grass, you can find pet turf grass carpet that allows for good drainage as well as the look and feel of grass for dogs.

These are a few approaches that you can take to preserve the integrity of your client's lawns. For more information on these methods, please see the references below. (*Maria Turner*)

https://anrcatalog.ucanr.edu/pdf/8255.pdf

https://aggie-horticulture.tamu.edu/archives/parsons/turf/Dog_lawn_problems.html

http://sfyl.ifas.ufl.edu/lawn-and-garden/dogs-and-lawns/

http://www.walterreeves.com/insects-and-animals/dogs-landscaping-for/

http://americanpetproducts.org/Uploads/MemServices/GPE2017_NPOS_Seminar.pdf