

Midwest Factsheet

August 2007

Just Another Summer in Indiana Turf: Too much Heat, Too Little Water

Weeks of record high or near record high temperatures with virtually no rain has taken a toll on turfgrasses around the state. Lawns, golf courses, and athletic fields have all taken a beating, especially where *Poa annua*, *Poa trivialis*, or perennial ryegrass dominates the stand. Cool-season turfgrasses can survive for only 6 weeks or so without significant rain, but this would be under ideal conditions. Traffic, low mowing, south-facing slopes, hotspots around sidewalks, compaction, poorly adapted cultivars or species are just some of the factors that could decrease turf survival during a drought. Reseeding may be needed and we are in the optimum window for reseeding in most of the state.

Dormancy vs Death

Damage should be clearly visible on irrigated areas, but non-irrigated areas should be watered as needed to green-up those plants that are dormant but still alive. Irrigation should be applied every 2 to 4 days to wet the top 2-4 inches of soil, and dormant turf should recover and green-up within 10 to 14 days. If areas do not green up in 2 weeks time, the grass is most likely dead and will need reseeding or resodding.

Fertilization vs Reseeding

On Kentucky bluegrass, thin turf with softball-size holes can be healed with aggressive fertilization this fall. However, only golf ball to maybe baseball size holes in perennial ryegrass or tall fescue can be healed with fertilization because they are not spreading grasses. Fertilize in September with 1.0 lb N/1000 ft² with a fertilizer containing 30-50% of the N as slow release, such as sulfur- or polymer-

coated urea, urea formaldehyde, methylenediurea, dimethylenetriurea or natural organic nitrogen. Fertilize a second time near the final mowing in early November at 1.0-1.25 lb N/1000 ft² with urea. These two fertilizations will promote recovery of the turf. If the turf is exceptionally thin, a third application in early October at 1.0 lb N/1000 ft² with urea will provide a tremendous boost to the turf. However, reduce the November fertilization to 1.0 lb N/1000 ft² if you make this October application. Since this October application may encourage snowmold, use it only in thin areas where you can justify this risk with the reward of improved turf.

On areas that have more damage than what can be healed through fertilization, overseeding will be needed as soon as possible. Before you overseed, take a step back and determine if reseeding could be only a temporary fix when other major improvements are really needed. Poor drainage, faulty irrigation, poorly-adapted grass species, perennial grassy weeds, compacted soil, buried construction materials, shade, and excessive traffic are just a few of the issues where reseeding is only a band-aid. Power overseeders, power raking followed by drop-seeding, or aerifying followed by drop seeding all work well.

Post-seeding Care

On newly seeded areas, apply a starter fertilizer at 0.5-0.75 lb N and 1.0-1.5 lb P₂O₅/1000 ft² at seeding and again 4 weeks after germination. Even if only part of the area was reseeded, it won't hurt the rest of the area to receive this fertilization in lieu of the September fertilization discussed earlier. Depending on timing of seeding, the final

Calendar of Events	
2007	
October 11	Golf Day, <i>Coyote Crossing, West Lafayette</i>
November 13-14	Turf & Ornamental Seminar, <i>Daniel Center, West Lafayette</i>
December 10	Basic Training <i>Fort Wayne</i>
December 18	Basic Training <i>Marion Co. Extension Office, Indianapolis</i>
2008	
January 14-16	Indiana Green Expo, <i>Indiana Convention Center, Indianapolis</i>
January 22	Basic Training <i>Evansville</i>
February 11-14	IN-IL Short Course, <i>Boone Co. Extension Office, Lebanon</i>
February 25-28	IN-IL Short Course, <i>Willowbrook, IL</i>
June 1	2008-09 MRTF Member Renewal
July 15	Turf Field Day, <i>Daniel Center, West Lafayette</i>

application of the year should be 1.0-1.25 lbs N/1000 ft² with urea as above. Be careful with herbicide applications after seeding because they may damage seedlings. Refer to the label for specifics, but generally waiting until late October to control dandelions will be safe on the seedlings while giving very effective control. If the hot, humid weather

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continues after germination, a fungicide labeled for pythium damping off like SubdueMaxx (mefenoxam) or Banol (propamocarb) could help establishment. Using treated seed is another good option, especially since it adds little to the cost of seed.

Drought Limits Fertilization and Broadleaf Weed Control

Fertilizing drought-stricken turf is not recommended because the plant will not take up the nitrogen quickly if at all. Therefore, avoid fertilizing droughty turf until it has greened-up. If that doesn't fit into the schedule, use a fertilizer with the majority of N as slow release, so most of the N releases later after our rains (hopefully) return. Broadleaf herbicides will not effectively control drought-stressed weeds and may damage drought stressed turf. Hold off on any broadleaf

weed applications until the rains return. Since broadleaf weed herbicides can be effective well into October and November, you should have plenty of time to apply yet this year, which will be far more effective than applications next spring.

Grub Damage and Dry Turfgrass

A drought tends to concentrate egg-laying Japanese beetles and masked chafers into areas of irrigated turfgrass. Eggs require moisture and during severe drought years, newly hatched grubs can only survive and feed where soil is irrigated. This means that in many areas of the state right now, well-maintained turfgrasses are at an even higher risk of developing grub damage than in normal years. Adding to this increased risk of grub pressure is the fact that extended heat and drought reduces the natural

root growth and development of grass plants. The result is that turfgrass under drought conditions is much more susceptible to even light grub feeding injury. The bottom line is that some irrigated turfgrasses may be hit harder by grub damage this year than in most years. Where protection against grubs is required, do not delay. Early August is the optimal time to make an application of any of the preventative treatments. (After mid September, Dylox is usually the best curative product to apply). Be sure to water chemical treatments in thoroughly and remember that control may be especially difficult in thatchy turf.

Please contact us at 765-494-8039 or zreicher@purdue.edu if we can help. More information is also available on our web page at www.agry.purdue.edu/turf/

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