OKLAHOMA COOPERATIVE EXTENSION SERVICE

Water Quality UPDATE

Newsletter of Extension Water Quality Programs *March 2004*

The January UPDATE discussed environmental landscaping, specifically "green" lawn care. In this issue, OSU Extension Turfgrass Specialist Dennis Martin adds to the discussion. The back page is a special supplement on the topic, designed for submittal to local newspapers. Please email propst@okstate.edu if you would like to receive the supplement as a Word document.

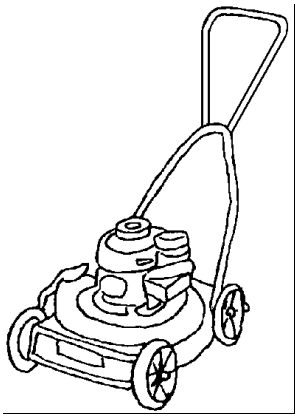
Don't Frown on Brown

The previous UPDATE called the lawn "the biggest water consumer" in American home landscapes. A better statement would be "the lawn is *often* the biggest water consumer." For many Oklahoma households, trees and ornamentals other than turf are the most "at risk" plant material during our frequent dry spells.

That's because one of the most water-efficient and dynamic plant materials for full-sun in Oklahoma is right under our noses...*Cynodon dactylon*, Common bermudagrass. Yes, it is an aggressive species, but its ability to adapt to a wide variety of harsh environmental conditions makes it the turfgrass of choice in full-sun areas across our state. In fact, under xeriscaping (i.e., *water-conserving*) management, bermudagrass often shows itself as one of the most dynamic plant materials in an Oklahoma landscape. It has the capacity to go dormant during severe drought and can recover from injury when adequate moisture again prevails. So, although failure to water during an extended drought can substantially injure many trees and ornamentals, the impact on bermudagrass lawns is mainly aesthetic; they turn brown but recuperate once rains arrive.

In This Issue:

Unfortunately, today's "image-obsessed" culture often has little tolerance toward brown lawns. This policy accounts for much of the tremendous water usage in lawns. Currently, a green lawn serves as a sort of "merit badge" to denote the diligent homeowner. Reduction in water use will result when people realize that it's okay to have a brown lawn in summer. Remember, bermudagrass developed under hot, dry savannah-type conditions. That is not to say that water conservation should serve as an excuse for poor home upkeep. Rather, Oklahomans need to recognize that a well manicured brown lawn in August is an indication of a hard-working homeowner that is a good steward of both personal property and public resources.



Made in the Shade

Along the same lines, the January issue indiscriminately encouraged homeowners to reduce the actual turf area in their landscape in order to decrease water usage. However, Martin noted that it often makes little sense to reduce bermudagrass use in full sun. He went on to say that one place where turf reduction is truly justified is in the shade.

According to Martin, no turf-forming grasses are well adapted to the harshness of shade in Oklahoma. High input cool-season grasses are used with mixed success in these areas. Since these grasses are typically the highest water users, lessening their use would greatly reduce water usage. In addition, cool-season grasses are more prone to disease and are often preferred by insects over warm-season grasses. Therefore, reducing their use would also decrease pesticide use. The bottom line for homeowners is to use turf only in full-sun areas and not to put it in shade, if at all possible. Instead, use other understory plants, mulch layers and naturalization features.

Talking Turf with OSU Extension

"Temps Expected to Top 100"
"Dry Spell Continues"
"City Restricts Water Use"

It won't be long until these and similar headlines appear in newspapers around Oklahoma. Obviously, you can't control the weather, but you can do something about water availability. The OSU Extension Water Quality Office and OSU Extension Turfgrass Specialist Dennis Martin have a few tips to help.

It has been reported that the lawn is the biggest water consumer in American cities, accounting for up to 50% of urban clean water use. Amazingly, high water consumption by turfgrass is often caused more by how people choose to manage lawns than the lawns' inherent water requirement for survival. That's because one of the most water-efficient and dynamic plant materials for full-sun Oklahoma is right under our noses…*Cynodon dactylon*, or Common bermudagrass.

Bermudagrass has been criticized because of its aggressive nature; sometimes you have bermuda whether you want it or not. However, this shows the ability of this plant to adapt to a wide variety of harsh environmental conditions. Unlike many other plant materials, bermuda can usually recover when rains commence after a drought.

Trees and many other plants can be permanently damaged if they don't get enough water. During a dry spell, bermuda goes dormant. The plant quits growing, leaves and some stems die, but regenerative parts survive. When water is restored, bermudagrass recovers. The problem is that during the dormant period, the plant loses its green color and turns brown. In today's image-driven culture, there is often little tolerance toward brown lawns. Everyone admires the bright green lawn on the corner.

The tremendous amount of water used on lawns is often caused by homeowners earning this "merit badge." But, if it hasn't rained in a month of Sundays, keeping the lawn green can severely tax your community's limited supply of clean water. Oklahomans need to recognize that a well-manicured brown lawn in August indicates a good steward of both personal property and water resources.

Some water-conscious writers have encouraged homeowners to reduce the turf area in their landscape in order to reduce water use. OSU Extension Turfgrass Specialist Dennis Martin says this makes little sense in full-sun areas of the landscape. Replacing bermuda with a walkway or a deck would reduce water usage, but replacing it with a flower garden or some other full-sun plant probably would not.

Martin notes that turf reduction in the shade is another story. According to Martin, turf-forming grasses are not well adapted to the harshness of shade in Oklahoma, even the cool-season grasses. Since cool-season grasses are typically the highest water users, reducing their use in both full-sun and shaded areas can really reduce water usage. In addition, cool-season grasses are more prone to disease and insect damage. So, taking them out of the landscape would also reduce pesticide use.

Martin suggests using other understory plants, mulch layers and naturalization features under trees. For the homeowner, the bottom line is, "Don't indiscriminately take out your lawn to save water; remove the poorly adapted part of it from the shade to save water, money and time."

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