

RECOVERING FROM THE DROUGHT OF 1988

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Beware, it's still out there hidden from view by frozen soil and a mantle of snow and ice. It's waiting to reappear in the spring. It may cause your phone to ring late into the night, and add to the stress and anxiety induced by the first whiff of spring in the air. It's there....brown, sparse, and ugly. It's in your lawns, utility areas, and athletic fields. It's the damage from the drought and pest onslaught of 1988.

The exact scenario of events that brought on this damage provides an interesting study of turf as a functional but living component of our urban environment. During mid-winter, the scope of the heat and drought of 1988 is difficult to remember. However, let's recollect that we and our turf areas have not experienced conditions of this severity in 50 years, and unfortunately, during the drought in the 30's no one recorded the effects on urban plant material and turf. Therefore, we are working with new information gained by observation and some "guesstimates".

For the 1988 season, my observations of non-golf, turf areas can read as "good" news or disaster. Here's the story:

The good news is that properly irrigated turfgrass areas survived the summer of '88 with little apparent damage. Irrigation provided cooling, sufficient growth for the maintenance of visual quality and stress recovery. Also, insect activity or damage was a minor problem. Practical field observations show that chinchbugs and sod webworms are prolific pests in moderately dry conditions. Properly irrigated turfgrass areas seldom suffer from these two pests. Grub and billbug damage can be largely masked by aggressive turf growth maintained by irrigation.

The moderately good news is that partially irrigated lawns seemed to have escaped serious damage if insect infestations were properly diagnosed and controlled.

The "bad news" largely pertains to non-irrigated utility lawns usually composed of common Kentucky bluegrasses and fescues. Many of the turfgrass areas in this category actually started suffering with the moderate drought of 1987, which was accompanied by massive infestations of chinchbugs and sod webworms. These turfgrass areas needed ideal growing conditions during '88 for recovery of the damage of '87. However, "Mother Nature" certainly decided not to cooperate. Before much recovery could take place, the drought of '88 commenced in mid-spring. By late spring, non-irrigated turfgrass areas were already retreating into dormancy. By mid-summer, these areas had turned a dry, crisp, golden brown. Only shaded areas maintained a hint

of the characteristic blue-green coloration usually associated with dormant turf. Fortunately, chinchbugs and webworms were also discouraged by these conditions. Many people began asking at what point will grass progress from dormant to dead? No one actually knew until mid-August. The rainy weather returned in late August, but soon we had the answer to the "when dead" question. In many non-irrigated turfgrass areas, the so called drought tolerant fine fescues had died. Often large stands of common Kentucky bluegrass were also lost. Fortunately, in shaded areas, the turfgrass recovered very nicely with minimal loss of quality.

Without competition from desirable grasses, annual weed seeds that remained dormant from the drought germinated with a vengeance. By late August, most turfgrass areas appeared quite green and pleasant, except that often much of this growth was crabgrass plus a host of late summer annual, broadleaf weeds, such as spurge, knotweed, oxalis, and purslane. In the fall, frost killed the annuals and quickly separated the remaining desirable grass from the weed onslaught. Now, billions of weed seeds are lying dormant waiting for spring.

If repairs were not made last fall, spring will be your next opportunity to fix the damage from the drought of '88. The appropriate course of action will depend on a variety of factors, such as the severity of the damage, equipment available, budget, and spring weather. For example, if turf density is generally thin but adequate and seeding is not planned, plan on applying a pre-emergent, crabgrass herbicide at the appropriate time. Also, keep in mind that some pre-emergent herbicides will suppress some annual broadleaf weeds. For example, reports indicate that Dacthal will reduce problems with spurge. Balan may suppress chickweed, knotweed, and purslane. While pendimethalin is reported to stop chickweed, oxalis and spurge as well as crabgrass. Keep in mind that pre-emergent herbicides must be followed by adequate irrigation or rainfall for the product to be "activated". A few light showers will not suffice. Next, plan a fertilization program to promote vigorous growth throughout the season or at least when moisture is not limited. Late summer and fall are key periods for maximum fertilization. Broadleaf weeds, both annual and perennial, can be expected to compete aggressively with the thinned turfgrass. Stock your shelves with suitable selective herbicides, and be sure to include the newer materials that will control the "stubborn" weeds, such as violets, speedwell, oxalis, spurge, and knotweed. Products to consider would include Super Trimec, Weedone DPC, and Turflon.

If turf density is insufficient for recovery through regrowth, re-seeding will be required. Let's face the facts, Spring is often a tough environment for spring seeding because the weather can jump 30 degrees in a couple of days. For the best results, start your renovation as soon as the weather permits. Keep in mind that the seed must be placed in contact with the soil for successful establishment. A possible agenda would be to dethatch with a verticut machine followed by vigorous

core aeration. Next, seed and then drag to process the cores as a top dressing. Access to a slit seeder or renovation seeder can increase your efficiency in renovation projects. Also, apply siduron (tupersan) for pre-emergent crabgrass control. This unique herbicide will allow the desirable grasses to germinate while stopping the crabgrass. Don't forget to stock a supply of bromoxynil to knock out those young broadleaf weeds that will be invading the developing turf. Unlike other post emergent herbicides, this product can be used during the tender seedling stage. Also, don't forget to irrigate and fertilize. Lack of sufficient water is the number one cause of seeding failure. Fertilization is important to stimulate growth and propagation of new grass plants. Don't allow the seedlings to starve and struggle.

Finally, keep a supply of Acclaim on hand to knock out any crabgrass that slipped through the pre-emergent net. Of course, a final step would be to install an accurate, automated irrigation system. Another dry summer could lend economic justification to an irrigation system regardless of turf quality. For example, you can spend \$XXX dollars for irrigation or the same \$XXX dollars for repair or damage caused by insects and drought.