

# Evaluating and Renovating Drought-Stricken Lawns

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Un-irrigated Kentucky bluegrass and tall fescue lawns have suffered severely during the heat and drought of 2007. Even with a mostly brown lawn it is currently impossible to determine if the lawn is dead or alive. If recovery does occur, it will only happen after we get cooler weather and natural rainfall. And, it is no consolation to be reminded that September and October are normally the driest months of the year.

Kentucky bluegrass lawns can go dormant (brown) during a drought, and if the grass was pre-summer healthy and had underground, lateral stems (called rhizomes), then new tillers will normally start to develop in October or early November. Although the lawn will be thin and often heavily inundated with weeds, it will recover. Tall fescue initially withstands drought and heat much better than Kentucky bluegrass, but if the drought is very severe, tall fescue may completely die because it is a bunch grass with very few underground rhizomes.

## Considering Renovation

**Brown fescue or bluegrass.** If a bluegrass or fescue lawn is almost totally brown in late August or September, then certainly one could slit seed (power seed), or verticut with a de-thatcher and broadcast the seed. A good turf-type tall fescue is preferred for renovation because bluegrass is just too slow to establish. It is usually best to wait until we receive significant rainfall, or until the weather is much cooler and one is able to keep the seedbed wet with irrigation. You want to seed by October 1 and certainly no later than Oct 15. Broadcasting tall fescue seed at 6 lbs per 1000 sq. ft. is normal for most seedbeds, however if



power seeding, only about 1 lb/1000 of seed should be seeded during each pass of the power seeder. A much better stand of grass will occur with at least two passes with the power seeder and broadcasting the remaining 4 lbs / 1000 of seed. Best turfgrass varieties can be found on the UK Turf web site at [www.uky.edu/ag/ukturf](http://www.uky.edu/ag/ukturf).

**Green, but Thin Turf.** When there is some green turf, one can consider broadcasting tall fescue seed (without slitting) and if the surface is kept wet with irrigation and rainfall for about 2 weeks, tall fescue will often establish very, very well.



Consider spraying glyphosate (Roundup) on lawns that have areas with good bluegrass, but only if one is concerned with different textures of grasses. The newer tall fescue varieties are getting pretty close to the texture of bluegrass and the differences are not so noticeable when established. Obviously if the bluegrass is very dense, you would not get tall fescue established within (unless the bluegrass was killed with glyphosate).

Certainly this will work better with perennial ryegrass, but the persistence of perennial ryegrass is suspect when you enter the next drought. Otherwise the turf type perennial ryegrasses are very easy to establish and can make a quality turf, i.e. if they do not get a disease called gray leaf spot (GLS). We normally do not get GLS on lawns but certainly it is a possibility and a devastating disease. Quality perennial ryegrass can best be maintained when properly irrigated.

**Mower Damaged Turf.** Severe damage often occurs when lawns are mowed when the soil is dry and the temperature is 90+ degrees. The damage is mostly mechanical but it may kill 75% or more of the grass tillers. Some of the dead-looking grass will recover, but it will not be a quality lawn for several months, if at all. These lawns should be renovated as described above.



**Considering Glyphosate (Round-Up) Prior to Renovation.** If the lawn is sparse tall fescue when it recovers, then tall fescue overseeding (without slit or power seeding) can be very successful, i.e. if the lawn can be kept very wet for a couple of weeks. If it cannot be watered, then slit seeding (power seeding) will be superior.

**Considering Damaged Perennial Ryegrass Lawns.** If you have a thin perennial ryegrass lawn that is not totally dead, then the only way to get tall fescue established is to kill the existing perennial ryegrass with glyphosate. Because of allelopathic chemicals emitted from live perennial ryegrass roots, even a few surviving clumps of perennial ryegrass will keep tall fescue from germinating. After the perennial ryegrass has died, you can successfully inter-seed tall fescue. Sometimes however, perennial ryegrass will look dead in September or October but then start recovering in November. It will be a species mix, whether you want it or not.



**Bermudagrass Contamination.** The biggest complication to renovation occurs when the lawn has been overtaken by bermudagrass; a light green, spreading, perennial, warm season, grassy weed. I would want to go ahead and spray Bermuda areas with glyphosate, even though

bermudagrass won't be killed with one or even two applications. To get maximum bermudagrass kill, it will be necessary to use the highest label-rate of glyphosate and have good soil moisture for good Bermuda growing conditions. After a few days, you would want to remove as much of the dying Bermuda from the surface as possible, till the area if possible, rake out exposed rhizomes and stolons, and then seed or sod with tall fescue. To prevent the bermuda from totally recovering the following summer, these old Bermuda areas should be sprayed monthly with fluazifop (Fusilade II). This will give maximum bermudagrass suppression.

**Nimblewill Contamination.** Nimblewill is another spreading, warm season grass that flourishes during hot summers. It can also be sprayed with glyphosate as noted above, but it will tend to re-establish itself from seed. Nimblewill stolons (above ground stems) do not spread fast like bermudagrass. Hopefully within a year or so, a new selective herbicide will be available to selectively remove nimblewill from bluegrass or fescue lawns.

**Crabgrass Dominated Turf.** With a few cool nights, crabgrass will stop growing and will not seriously compete with newly seeded grass. In fact, crabgrass will be killed with a heavy freeze or frost and the old dead plants act as a mulch for new grass seedlings. However, power seeding or verticutting is an important step in renovating crabgrass infested areas in order to thin the crabgrass cover and get good soil-seed contact.

**Broadleaf Weeds, i.e. Clover.** With good soil moisture, most broadleaf weeds can be quickly controlled with broadleaf herbicides containing 2,4-D and dicamba. These products can reduce seed establishment for a couple or three weeks, so it is usually best to thin the weed cover with a power seeder or verticut during seeding, and then plan to kill the broadleaf's after the grass is well established.