What is Wrong With My Lawn?

Lawn problems can occur in small areas or larger patches; entire lawns can die. Sometimes the problems are due to poor growing conditions, improper lawn care practices, or extreme weather conditions. Other problems can be due to specific insects pests or diseases.

The following list is a guide to help you decide what conditions might be causing problems, with some suggestions for preventive and corrective measures. Further information and fact sheets are available for more detailed help in ***TURF IPM*** *FACTS*.*

After Winter, But Before Spring Green-Up

Winter desiccation - large areas of straw colored grass especially where exposed to wind with little snow cover.

Spring frost damage - new leaves killed back.

Water and ice damage - straw colored or rotted grass, especially where water collects in frozen soil.

Snow molds - white, pink, and gray mold in circular patches on moist grass.

Salt damage - dead or yellowed grass along sidewalks, drive-ways, or roads where salt has been applied.

PREVENTATIVE MEASURES

In fall:

- Avoid snow molds by mowing as long as grass grows in the fall.
- Avoid mid-fall nitrogen applications that delay dormancy.
- Prevent deep piling of snow along walks and driveways.

In winter:

- Try sand, cat box filler, etc. as a substitute for deicing salt. Avoid salt when possible in sensitive areas.

In spring:

- Rake away dead grass.
- Reseed thinned or bare areas when soil is well drained and warm, with night temperatures above 35°F.
- Water heavily to try to wash away salt if damage is from salt.

After Spring Green-Up

SOIL PROBLEMS AND CORRECTIVE MEASURES

Compaction: Soil is hard; turf is thin. Rooting is poor.

- Core aerate the soil. Allow cores to dry, and drag back in. Overseed with appropriate grass species. To avoid crabgrass infestation, delay core aeration until late summer/early fall.
- Add organic matter during lawn reconstruction.
- Reroute foot traffic and play areas to avoid frequent packing down of soil.

Over-liming soil or acid soil: Poor growth. Soil test indicates inappropriate pH for grass growth. The pH should be in the 6.0 - 6.5, range.

- Have soil pH tested.**

- Adjust pH as recommended.

Low nutrient levels: Yellowed, slow growing lawn.
- A balanced soil fertility program supplying nitrogen/phosphorus/ potassium (NPK) promotes a healthy lawn.
- Have soil pH tested. Adjust pH if necessary.

Improper fertilizer application: Over- and under-fertilizing can result when a spreader is not calibrated properly or when the application pattern is not carefully followed. Take special care when turning with a spreader. Brown streaks lined with extra green growth can occur in areas of application overlap. Yellow nutrient deficient streaks may occur in missed areas.

Dog urine: Spots of brown grass, perhaps with green area around them.

Foreign chemicals and gas damage: Many household chemicals, salt, oil, gasoline, concentrated fertilizers, herbicides and gas leaks can cause sudden scorched areas in lawns at spill (leak) sites.

WATER PROBLEMS AND CORRECTIVE MEASURES

Watering
- Water deeply (to a depth of 6") when necessary.
- Water early in the day so foliage will dry quickly. Night watering (after dew appears) is not recommended during very hot, humid weather because of potential for disease development.

Too little water: Wilt (blue-green color and footprints easily visible), browning, or death. Some turfgrasses (e.g. Kentucky bluegrass) will go into dormancy in drought but will green up again when moisture returns. This type of dormancy imposes a stress on the turfgrass, and weakens its defenses against pathogens and other stresses.

Too much water: Deprives roots of oxygen, stunts growth, and promotes root and crown rots.
- Water less frequently. Correct drainage if necessary.

LIGHT PROBLEMS AND CORRECTIVE MEASURES

Shade: Most lawns will be thin in shaded areas.
- Selective pruning of tree and shrub branches may let in enough extra light to promote grass growth.
- Plant shade tolerant turfgrass cultivars or other groundcovers in heavy shade.
- Increase mowing height.
- Decrease fertilizer application rate.

Too much thatch: Thatch forms when stems (including lateral stems: stolons and rhizomes) and roots are produced and then sloughed off by the turfgrass plant faster than they can break down. Highly maintained turf heavy in Kentucky bluegrass tends to develop thatch quickly. Clippings left on a lawn do not contribute significantly to thatch buildup.

- Remove thatch layer if greater than 1/2" thick because excessive thatch prevents grass plants from absorbing nutrients and water properly, and may provide a harbor for pathogens and insect pests.
- Prevent accumulation of thatch by avoiding excess fertilizer and fungicide applications.

MOWING PROBLEMS AND CORRECTIVE MEASURES

Mowing Height
- Mow lawns at 2" to 3", with maximum in hot, dry weather.
- Avoid “scalping,” especially in irregular, bumpy areas.

Mowing Frequency:
- Remove no more than 1/3 of total length at a cutting so grass is not stressed.

Clippings: Can generally be left except during a disease outbreak or if they tend to "clump" on the lawn.

Machinery: If grass blades look brown and shredded, sharpen and adjust blades.

DISEASE PROBLEMS AND CORRECTIVE MEASURES

General Practices that Reduce Disease: (in addition to those listed above)

- Keep foliage dry as much as possible.
- Mow when grass is dry.
- Landscape to allow good air circulation.
- Collect clippings when fungus is active in lawn.
- Avoid nitrogen fertilizers early in spring, in hot weather, and just before grass becomes dormant.
- Choose disease resistant cultivars when possible.

Circular patches and/or rings of dead and/or unusually green grass:

- Note size and patterns.
- In the morning when grass is still dewy, look for the web-like threads of the fungus and/or mushrooms on the lawn.
- Dig up a section of dying grass, and examine the roots for dark color and evidence of root and crown rot.

When grass is thin or dead in an irregular area:

- Examine individual grass blades for:
  - leaf spots (probably tan with dark borders).
  - evidence of fungus; orange, black, or white powdery spores.
  - gelatinous red threads.
  - slimy or powdery white, orange, or brown mold.

INSECT PROBLEMS AND CORRECTIVE MEASURES

White grubs: Gradually increasing patches of thin turf, often looks like drought stress; sometimes accompanied by skunk, raccoon or crow damage (lawn torn out in hunks); usually observed in April and May (or early June) or in September and October. Animal damage may persist through open winters.

Chinch bugs: Generally observed in sunny areas or on sandy soils, often confused with drought stress; usually observed during hot periods in July and August.

Bluegrass billbugs: Sporadic in New England; usually begins as yellow areas along the edges of driveways and sidewalks. Damage usually observed in July or early August; adults maybe seen on pavement in late May or early June.

Sod webworms: Adults are small moths which fly just above the ground at dusk; damaged areas begin as small discrete patches which can spread into larger areas; feeding (by caterpillars) occurs at night.

*** *Turf IPM Facts*** is a packet of fact sheets detailing basic turf management practices as well as techniques for pest management. The latest update will be available after January 2002. For ordering information, contact the UMass Extension Bookstore, Draper Hall, 40 Campus Center Way, University of Massachusetts, Amherst, MA 01003-9244; tel. (413) 545-2717.

** **Soil Testing Information:**
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