WINTER DAMAGE TO TURF

During the next couple of weeks, we will pass through one of the most critical periods in the turf management year. This is the period the turf plant moves from its dormant state to that of an actively growing plant. Much of your success during the next growing season will depend upon how well this transition is made. You, the turf manager, should be aware of the possible problems which might appear during this period and be ready to take the appropriate action when necessary.

One of the most critical problems you will soon face will be loss of turf from suffocation. During winter months, ice may collect in low spots or hollows which do not drain. As temperatures rise in late winter and early spring, water collects under the ice and above the frost layers in the soil. It may become trapped in this position long enough to suffocate the grass as it starts its first spring growth. The sheet of ice and water beneath it prevents the turf plant from getting the oxygen it needs, as well as allowing the building up of toxic gases. The ice must be broken up. However, great care must be given to the selection of equipment used for this process. Heavy equipment may cause additional damage on a soft soil. Many times a dark-colored fertilizer can be spread over the ice to help speed up the melting process. If an area has an ice problem year after year, thought should be given to providing better drainage. Poor drainage is probably the major contributor to this problem.

Turf loss may also occur from the desiccation of the plant. Turf which is not protected during the winter from strong, dry winds may dry out and perish from lack of moisture. Even though the turf is dormant and is not producing foliar growth, it still has a minimum water requirement. With the soil being frozen and the top of the plant being exposed to the air, the plant simply is not able to replenish the moisture lost from the leaves and dies. Under normal conditions where snow covers the turf and protects it from drying out or where other vegetative windbreaks shelter the turf, injury from desiccation is not common. However, areas which are high and exposed to the winds can have desiccation problems especially from early spring winds after the snow has left. Watering these areas as early as possible may be necessary. This can be successfully done by using a large tank-type sprayer on a day when temperatures are above freezing. The amount of water applied need not be large as long as the surface of the turf and soil is moist.

Early traffic on turf areas is also a concern. Damage may be caused mechanically by a wearing away of the turf. When the plant is not growing, it cannot replace its leaf tissue. Traffic on frosted turf can cause the plant's death by rupturing cells inside the plant. The loss of turf to traffic is also a result of soil compaction. Soil is most easily compacted when it is wet. A compacted soil will not support the growth during stress periods later in the year.

As the snow leaves, you may see the damage from two turf diseases called pink (Fusarium) and grey (Typhula) snow mold. Usually, by the time you see these diseases the damage has been done. As a rule, these pathogens are most active at temperatures from 40 degrees to 60 degrees F. They develop readily in areas along the receding edge of snow banks and under the snow where footprints, ski tracks, and other forms of traffic have compacted the snow. Injury is not noted until the snow has melted, and by this time it is too late for effective use of fungicides. About the only thing you can do now is to dry out the infected area. A rake may help to break up the crust and thus let air and light into the sod. These diseases will not operate in a dry environment.

Many of our "winter problems" can be prevented with a little thought the fall before. When you see these problems this spring, make a note so corrective action may be taken before next winter.

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