

PROBLEM SOLVERS

Michigan State University Extension

Fertilizing Lakefront Lawns

Water is the vehicle, which transports nutrients into the soil. Unique chemical characteristics of the soil determine whether the nutrients are temporarily held to soil particles until consumed by plants or whether the nutrients are carried freely in the water to stream, pond or lake.

Eutrophication

The process by which lakes, ponds and streams become overly rich with nutrients. As a result, some plants thrive and others are crowded-out.

Phosphorus & Eutrophication

Phosphorus is usually the critical nutrient in eutrophication. In water ecology, phosphorus shortage usually limits aquatic plant growth. When the phosphorus supply rises or falls, algae and other water plants respond accordingly. Sewage discharges, improper or over-fertilization of lawns, and sedimentation are big contributors to water vegetation problems.

Guidelines for Lakefront Lawns

1. Lawns should be maintained to provide a MINIMUM LAWN QUALITY.
2. If you are ESTABLISHING A LAWN, consider planting or sodding with a lower maintenance grass mixture, such as 50% Kentucky bluegrass and 50% fine-leaf fescue. A lawn composed of this mixture will grow nicely with one fertilization in the spring and one in late summer. If you desire a higher quality lawn, use one or more of the improved bluegrasses for part or all of the Kentucky bluegrass portion. SUGGESTED improved VARIETIES are Baron, Adelphi, Galaxy, Victa, Cheri and Touchdown. Using these improved varieties may require an additional fertilizer application during the season, but their disease resistance will improve the durability and appearance of the lawn.
3. ON AN ESTABLISHED LAWN (unless a soil test indicates a serious need for phosphorus and potassium), AVOID using fertilizers such as 12-12-12, 5-10-5 or 10-6-4. USE turf (lawn) fertilizers that have little or no phosphorus or potassium, such as 23-0-6, 30-4-4 or 26-4-4. Water soluble, nitrogen-only fertilizers, such as urea (46-0-0) and ammonium nitrate (33-0-0), are not recommended because of their high water solubility. Highly soluble fertilizers carry through sandy soils when rainfall is heavy.
4. Fertilizer applications should be made in May and late August. Since the objective is to have the grass utilize all the fertilizer before leaching through the soil to the pond or lake, NEVER apply at rates heavier than recommended on the label. For additional protection, fertilize at ½ the suggested rate and repeat in three weeks. Therefore, two applications are considered one normal application. If yellowing develops or growth is poor, additional fertilizer also can be applied in June.
5. AVOID FERTILIZER-HERBICIDE MIXTURES. Use herbicides only if weeds become a SERIOUS problem. If weeds are treated, apply the herbicide in the fall, which will minimize runoff and reduce the chances of injury to woody ornamentals, such as trees. If only a few weeds are present, spot-treating the offending weeds during the spring and fall should eliminate any need for herbicide applications to the entire lawn.
6. On lightly fertilized lawns, thatch will probably not need to be removed. It will decompose and provide part of the nutrients needed by the lawn. One need not bag and remove clippings. These clippings rapidly decompose and recycle both nitrogen and potassium to the lawn.
7. Lawns require approximately one inch of water per week. Over-watering can contribute to leaching and nutrient runoff. When irrigating, apply only enough water to moisten the soil to a depth of six inches. Irrigating from a lake or pond may provide all or a part of the fertilizer nutrients needed by a lakefront lawn.
8. RAKE AND REMOVE LEAVES IN THE FALL. This will keep them from shading the lawn and from falling into the water, where they decompose and add to the water nutrient load and eutrophication.
9. Avoid cutting the lawn too short. Cutting height should be from 2- 2 ½ inches, so that an adequate photosynthetic area remains on the turf.
10. Where feasible and desirable, maintain a zone of natural vegetation between the lake and lawn. This natural zone slows the surface flow of heavy rainfalls and intercepts nutrients on their way to the lake or pond.