

Fertilizing Tips for Lakefront Properties

This specific mixture of shoreline fertilizer was formulated with our northern lakes in mind and is phosphorus free. But what does fertilizer have to do with our lakes and how can you help to maintain the water quality we all treasure?

Nutrients are the elements or compounds essential for life. In lakes, the algae and rooted aquatic plants which form the basis of the food web need nutrients, especially nitrogen, phosphorus, and carbon. Without nutrients, there would be no life in the lakes.



Different lakes naturally have different levels of nutrients. As a result, some lakes have clearer water than others (low nutrient levels) and some lakes are "weedy" (high nutrient levels) and support more fish than others. Whatever the natural nutrient level, each lake has developed into a stable, productive ecosystem over thousands of years in response to the amount of nutrients naturally available.

When large amounts of extra nutrients are suddenly added, lakes change, usually for the worse. More aquatic plants and algae grow. Water clarity decreases. Oxygen (crucial for all aquatic life) in the deepest waters may be depleted. Bottom sediments may become more mucky and the food chain becomes less stable. Some fish species are best adapted for conditions associated with either high or low nutrient levels, and drastic changes one way or the other can change the types of fish living in the lake, with a reduction of highly desirable sport species. Oftentimes these lake aging changes are referred to as eutrophication.

Phosphorus is the nutrient most responsible for the pollution and premature aging of lakes in Northern Michigan. For this reason, it is recommended that fertilizing be avoided in lakeshore areas (within several hundred feet of the shoreline). Most fertilizers contain phosphorus; however, this mixture was developed specifically for lakeside lots in our region. The formula used for this phosphorus-free fertilizer is 20-0-10, with 20 representing the percentage of nitrogen, 0 the percentage of phosphorus, and 10 the percentage of potassium (water-soluble potash). The nitrogen is from urea, and half of that total is coated with sulfur to help slow down the release of nitrogen into the soil. This variety of lakeside fertilizer also contains 8% calcium and 4% magnesium, which work well in soils common in this area.

Fertilizer containing no phosphorus is the type which should be used whenever fertilizing must occur in lakeshore areas. However, even this no-phosphorus formulation should be used cautiously to best protect water resources. We recommend that a 30-foot wide unfertilized buffer be maintained along the lakeshore, as well as along tributary streams and the edge of steep slopes, to avoid the runoff of fertilizer (*see other side of flyer*). An even better management technique is to vegetate the buffer with a variety of trees, shrubs, and ground cover, rather than turf grass, which promotes runoff and nutrient movement to the lake.

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