FERTILIZER FACTS

The best time to apply fertilizer is in the fall, *not* in the spring. Spring applications can actually harm lawns by promoting more leaf growth than root growth. This can lead to shallow root systems that are unable to sustain lawns through a drought or harsh winter. Fall applications, on the other hand, promote deep, healthy root systems and hardy lawns. Apply fertilizer in the fall after the average daily temperature drops to 50°F for a week or so (usually in October). To calculate the average daily temperature, add the daily high temperature to the daily low temperature and divide by two. For example, 61° (daily high) + 37° (daily low) ÷ 2 = 49° (average daily temperature).

Trees, shrubs, flowers, and vegetable gardens all require differing amounts of fertilizer nutrients under different circumstances. In fact, healthy trees and shrubs may not even require annual fertilization.

Contact your local nursery, Cooperative Extension Service office, or Soil & Water Conservation District for recommendations.

Village of Wauconda

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For more information about other publications in this series and to request copies, please contact: Illinois Environmental Protection Agency, DWPC-Lake and Watershed Unit, P.O. Box 19276, Springfield, Illinois, 62794-9276; 217/782-3362.

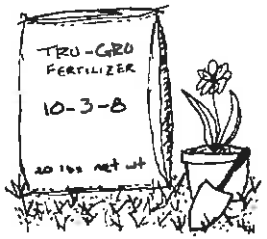
THE EFFECTS OF FERTILIZERS

Options for lawns and gardens

Lawn care practices impact water quality

FERTILIZERS AND THEIR NUTRIENTS

Did you know that the nutrients which feed your yard's grass, trees, shrubs, and flowers are the same as those that help algae and other aquatic plants grow in your lake? That's why it's important to avoid over-fertilizing our lawn and garden areas by knowing their nutrient needs and when it's best to apply fertilizers.

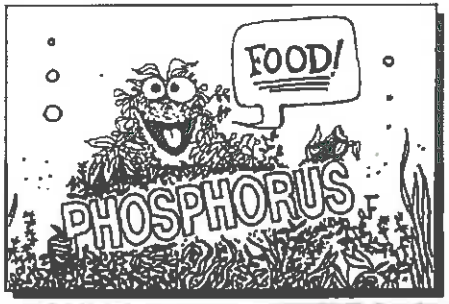


The three primary plant nutrients essential for growth are nitrogen, phosphorus, and potassium. Fertilizers can be purchased as "single ingredient" fertilizers (such as ammonium nitrate and urea for nitrogen, triple super phosphate for phosphorus, and muriate of potash for potassium). "Combination" fertilizers such as 8-8-8 or 25-10-5 contain all three nutrients. The three numbers indicate the percentage of each nutrient in the fertilizer. For example, a 10-6-4 fertilizer contains 10 percent nitrogen, 6 percent phosphorus, and 4 percent potassium.

Fertilizers are available in dry and liquid forms. They also can be classified by their solubility. Soluble fertilizers (all liquid and some dry formulations) release their nutrients rapidly, whereas slow-release and organic fertilizers (some dry formulations) release nutrients over a period of time.

Phosphorus is a nutrient that boosts plant and algae growth in your lake!

Following the application of a soluble fertilizer, plants may not be able to take up all the available nutrients, and some of the nutrients may leach below the plant rooting depth with percolating water. Since water "runs downhill" even under the land surface, these leached nutrients may be transported into the nearest lake or stream. Slow-release fertilizers, on the other hand, are designed to release nutrients at a rate more in line with plant needs. This means there is less likelihood that nutrients will leach below the plant rooting depth and be carried with subsurface water toward your lake. Turf-grasses are most responsive to nitrogen applications, assuming that adequate levels of the other essential nutrients are present. To find out what your lawn really needs, do a soil test. Soil test information is available from the Lake County Soil & Water Conservation District.

Visit www-lakeswcd.org or call 847-223-1056. A soil test will tell you the levels of available phosphorus and potassium in the soil as well as the soil pH (because nitrogen is so soluble, it's not practical to test for it). A fertilizer recommendation will be included in your soil test results. If levels of phosphorus and/or potassium are sufficient, there is no need to apply those nutrients. In fact, many studies have shown that lawns in the Midwest rarely need phosphorus. If you're located near a farmer's cooperative, check with them for no- or low phosphorus fertilizers. Otherwise, the Lake County Lakes Management Division also provides information on sources of phosphorus free fertilizers for Lake County.

Visit www.co.lake.il.us/health/ehs/lakes.asp or call 847-377-8030 for additional information. Consider ordering fertilizer as a lake association or neighborhood group you may be able to get a quantity discount. Remember too that grass clippings contain the nutrients your lawn needs to grow. A garbage bag of clippings contains up to 1/4 pound of usable organic nitrogen. Over the growing season, grass clippings can provide up to 50% of the nitrogen needed by your lawn. Hence, you can reduce your fertilizer costs by mulching grass clippings back into the lawn. The rate and timing of fertilizer applications are very important in maintaining a vigorous and healthy turf as well as keeping the nutrients on your lawn and not in the lake. Apply only the amount specified, and water your lawn immediately after application. Never apply fertilizers if rain is forecast: you can control your sprinkler but not the weather! Use a calibrated spreader to ensure uniform distribution and help prevent over-application.