

**LET ONLY RAIN
DOWN
THE STORM DRAIN**



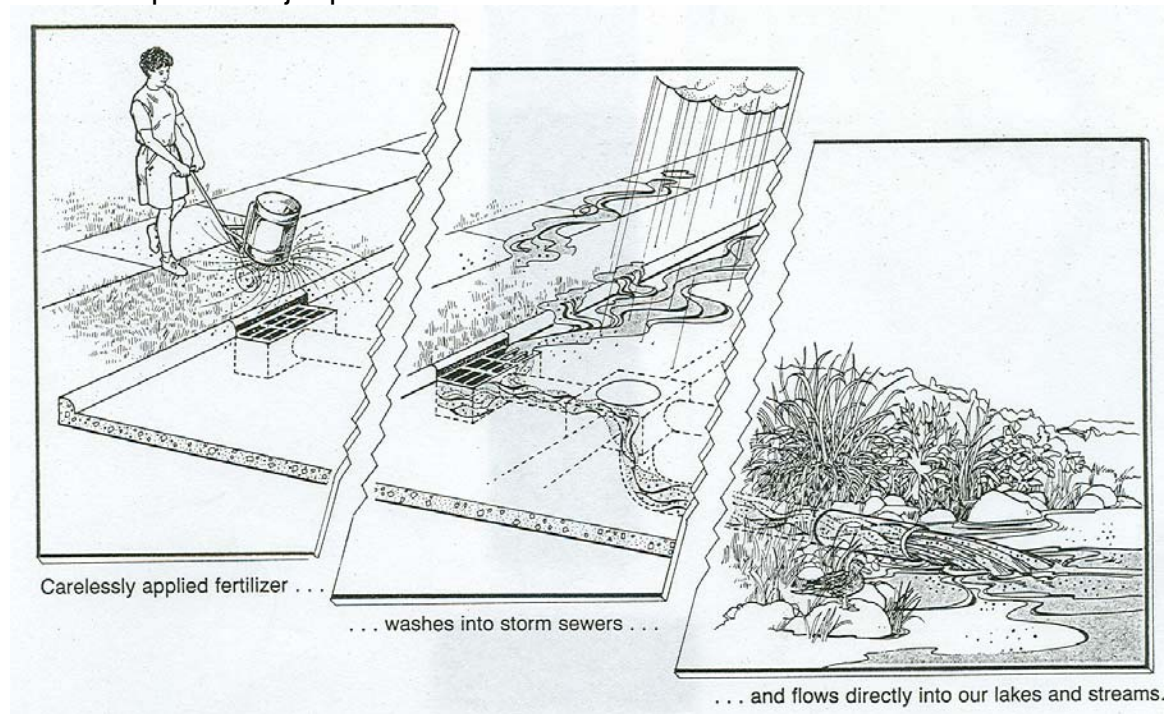
Lawn and Garden Fertilizers

Healthy lawns, trees, flowers and shrubs add to the beauty of our community and value to property. They also keep our lakes, rivers and ponds clean by allowing rainwater to filter into soil rather than running into storm drains. Maintaining healthy lawns and landscape plants, however, often requires the use of fertilizers; and improper fertilizer use can cause water pollution. Many fertilizer materials, including leaves and grass clippings, contain nitrogen and phosphorous. When these nutrients wash into local water bodies they

- Promote unsightly algae blooms and aquatic weed growth
- Lower dissolved oxygen levels in the water
- May release ammonia- which is toxic to fish

IT ALL ADDS UP

Fertilizer carelessly applied on one lawn can be a waste of money but may otherwise seem insignificant. On hundreds or thousands of lawns however, careless applications can add up to a major problem for local water bodies.



Tips for Efficient Fertilizer Application



FERTILIZER SELECTION

The label on a fertilizer bag has three numbers indicating the percentage (by weight) of the three nutrients most essential to healthy lawns. Nitrogen (N) is always listed first, followed by phosphate (P_2O_5), which supplies phosphorous, and potash (K_2O), which supplies potassium. Therefore a 25 lb. bag of 25-4-5 fertilizer contains 25% (6.25 lbs.) nitrogen, 4% (1 lb.) phosphate, and 5% (1.24 lbs.) potash. The remainder is made of ingredients such as sand or ground limestone

Plants do not distinguish between nutrients supplied by liquid, granular, or organic fertilizers. However, most organic fertilizers contain relatively low concentrations of plant nutrients compared to synthetic fertilizers, and release nutrients more slowly.

Slow-release fertilizers provide a lower concentration of nutrients over a longer period of time. Fast-release fertilizers do the opposite. Thus, the right selection of fertilizer type, concentrations, and frequency of application is necessary for balancing both plant needs and environmental risks. On heavy clay type soils, fast release fertilizers are preferred to slow release. The longer the granule remains undissolved, the greater the chances of it being washed into waterways. On sandy soils, however, nitrogen can leach through the soil into groundwater. On these soils, slow release nitrogen is preferred. Slow release nitrogen sources provide soluble nitrogen over a period of time so a large concentration of nitrogen is not available for leaching.

SOIL TESTS

A fertilizer program should begin with a soil test. Soil test provide specific recommendations for your lawn and garden and can help you avoid over-application of fertilizer. For more information on soil testing, contact the Agriculture and Extension Service office at (321) 633-1702.

LAWN FERTILIZERS

A lawn fertilizer program should begin in early October, not early May. Spring applications can actually harm lawns by promoting more top growth than root growth. Shallow root systems are unable to sustain lawns through drought or a harsh winter. Fall fertilizer applications promote deep healthy root systems and hardy lawns. It is also important to leave grass clippings on the lawn, as nitrogen applications can be reduced by 30-40 percent. For this reason, clippings should be swept off paved surfaces and back onto the lawn; otherwise stormwater can wash clippings into waterways where they fertilize the water. Keep in mind that over fertilizing and poor timing, not grass clippings, are the primary reasons for thatch problems in lawns.

GARDENS, TREES AND SHRUBS



Healthy gardens, trees and shrubs add beauty and value to property, allow stormwater to soak into the ground and help filter impurities from the water.

Start with a soil test. The nutrient requirements for garden plants vary. In general, nitrogen promotes leafy top growth; phosphorus is used for root development; and potassium is necessary for hardiness, disease resistance, and durability. Healthy trees and shrubs in well-drained, fertile soils do not require annual fertilizer applications. If they appear unhealthy, the problem may be caused by insects, disease, or the weather. Fertilizers should be applied when trees and shrubs are growing poorly and the problem cannot be traced to other causes.

When planting gardens, cover the bare soil with mulch to prevent erosion and sweep soil off paved areas. DO NOT wash the soil off, as these particles have phosphorus attached to them. When the soil is washed into waterways the phosphorus stimulates excess weed and algae growth.

A NOTE OF CAUTION ON FERTILIZER/PESTICIDE COMBINATIONS

Multi-step programs that combine fertilizer and pesticide applications are routine. However, care must be taken to avoid missing ingredients that should be kept separate.

Most insects found in the garden are beneficial and insecticides should rarely be part of a landscaping care program. **Insecticides can harm beneficial insects, as well as birds, pets and people.** Even in gardens where harmful insects exist, natural controls or better lawn care practices will reduce the threat.

Weeds are not the cause of an unhealthy lawn, they are the result. The best defense against weeds is a thick healthy lawn that comes from proper watering, fertilizing and mowing. **Routine herbicide applications are unnecessary** and the effects can bring frustration as the “weed and feed” products only kill the surface weeds, leaving the roots to grow again.

Most commercial fertilizers contain phosphorus, a major water pollutant. Yet many soils already contain enough phosphorus for a healthy lawn. This emphasizes the need for soil testing before fertilizer application. Low phosphorus fertilizers can provide necessary nutrients while avoiding the threat to water quality.