



Earth Kind:

Environmental Stewardship Program

Landscape Fertilization:

The wide-spread use of fertilizers in the landscape has resulted in rising levels of various forms of nitrogen and phosphorus in surface and groundwater resources. Incorporating a variety of Earth Kind landscape practices can address this important issue and help create a healthy and sustainable environment.

Attractive trees and shrubs are important components of an Earth Kind landscape. Planned maintenance and care are essential for keeping these plant materials healthy and vigorous. A well thought out fertilization program is an important maintenance requirement. However, it is important that plants not be overfertilized and that fertilizer not be expected to overcome problems caused by the use of non-adapted varieties, improper planting techniques, poor soil drainage, soil compaction or incorrect watering practices.



In many yards, a good lawn maintenance program may eliminate the need for supplemental fertilization for trees and other woody plants in the lawn. Additional fertilizer would simply be a waste of money and might result in nutrient imbalances or increase the risk of contaminating surface and groundwater resources.

Occasionally, additional fertilizer is needed in areas where a tree's root growth is restricted by streets, curbs, or other structural features. Shrubs and vines frequently serve as screens or borders for lawn areas within the landscape. Consequently, these plants are frequently forgotten or neglected in the normal lawn fertilization program.

Plant signs indicating the need for fertilization include lack of terminal growth, pale green or yellow leaves, mottled leaves, dead branches, stunted leaves and early loss of leaves.

General tree vigor is determined by comparing the length of twig growth during the past 3 to 4 years. Young trees should have at least 9 to 12 inches of terminal growth per year. Large mature trees usually average 6 to 9 inches of growth. Shrub vigor is determined in the same way. Growth varies from season to season and from variety to variety.



Obtain a Soil Analysis:

Earth Kind fertilizer recommendations should be based on a soil analysis. Instructions for taking a soil or leaf sample can be obtained from the county Extension office. Such analyses allow the application of fertilizers in amounts and ratios that minimize nutrient waste and the threat of pollution.

Without such analyses, general lawn fertilizer recommendations of 2 to 4 pounds of actual nitrogen per 1,000 square feet per year will meet the needs of most trees and shrubs. In turf areas, do not apply this amount at one time but rather make several applications to prevent fertilizer burn of the turf.

TEXAS COOPERATIVE EXTENSION

Proper timing of fertilizer applications has a marked effect on the growth of woody plants. In general, the best time to apply fertilizer is in the spring before growth begins.

Soil type also affects the timing of fertilizer applications. For sandy or loam soils, apply fertilizer as soil temperatures begin to rise and before growth occurs. For heavy clay soils apply the fertilizer in late fall after leaves have fallen or the plant is completely dormant.

The maximum growth response to the fertilizer is obtained if the fertilizer is available in the root zone at or slightly before the start of spring growth. In sandy soils fertilizer moves more rapidly into the root zone, whereas in heavy soils, it takes much longer for the fertilizer to penetrate.

Do not apply fertilizers from August 1 until late fall (about the time of the average date of the first killing frost). Late summer fertilizing can stimulate an excessive amount of new growth, making plants more susceptible to winter injury. In south Texas where freeze damage is slight, late summer fertilizer applications are beneficial and provide needed nutrients for late fall and winter growth.



Micronutrients:

The micronutrient most commonly deficient in Texas soils is Iron. This deficiency usually is noted in alkaline soil regions. The iron becomes insoluble and the plant cannot extract sufficient amounts from the soil for good growth. Iron deficiency symptoms include pale green to yellow leaves with darker green venation. It is very common on plant species not adapted to alkaline soils including some of the red oaks, maples and hollies.

Iron deficiency can be corrected partially with foliar applications of chelated iron provided label recommendations are followed. If the soil is only slightly alkaline, use soil applications of iron sulfate or sulfur.

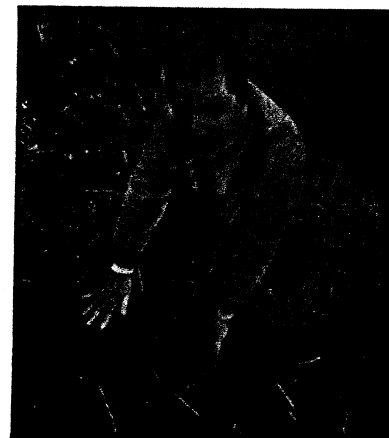
In general, woody plants adapted to the local area are usually very effective for growing in landscaped areas with well-maintained lawns. In the event that nutrient deficiencies occur, the practices described above will aid in maintaining strong, healthy trees.

Protect the Environment:

Fertilizer applied in excess of plant needs or with improper timing often goes to waste. In the case of nitrogen and phosphorous, the excess material may find it's way in to surface and groundwater resources.

To reduce the risk of pollution, minimize the amount of fertilizer which ends up in the storm sewer by keeping fertilizer off the pavement and driveways. A small amount of runoff from each yard can add up to a major pollution problem for the neighborhood, county, state and beyond.

Insure optimum fertilizer use by following fertilizer recommendations based on soil analysis. By following these Earth Kind guidelines you will assist in preserving and protecting our valuable natural resources.



See the Earth Kind web site for more information on the safe use and handling of fertilizers in the landscape.

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