(Plant a Tree cont'd.)

HONEY LOCUST. An excellent adaptable tree where light shade or a grass carpet under the tree is wanted. Reaching 60-90 feet with a rapid growth rate, there are many seedless and thornless clones. A rugged but graceful city tree requiring little fall cleanup of its tiny yellow leaves. Some important clones are 'Imperial', 'Majestic', 'Moraine', 'Shade Master', and 'Skyline'.

RED OAK. Beautiful hardy tree reaching 60-100 feet. The Red oak is one of the best trees for ornamental planting here but must be planted in well-drained soil. Fall color ranges from red to brownish-red or brown.

LITTLELEAF AND SILVER LINDEN. Both are dense trees reaching 60-90 feet. Both are slow growing, but hardy. The foliage of Silver Linden is silvery underneath. Fall color is yellow for both.

Soil Amendments and Tree Establishment

by Carl E. Whitcomb

Soil amendments have long been utilized in an attempt to modify soils on the planting site with the hope of improving tree growth and rate of establishment. Recommendations vary in terms of what should be used as a soil amendment and the rate or proportion of the material. Our original study was to determine the optimum amount of peat, vermiculite, ground pine bark or sand to be added at the time of planting to aid the establishment of trees and shrubs in the landscape. Over a 6-year period, five studies were conducted with varying rates and materials as soil amendments with and without irrigation and on three different soil types: a very sandy soil, a moderately good clay loam soil, and a very poor subsoil clay. The optimum amount of soil amendment to add was none. Pine bark was most detrimental to both establishment and growth followed by peat and sand. Vermiculite, although not beneficial when compared to no soil amendment added, was not as detrimental as were the other materials. When test plants were excavated, the root system in the amended soil treatments were confined primarily to the amended area, and few extended out into the surrounding soil. By contrast, where no soil amendment was used, the roots extended far beyond the original planting hole and thus were more well anchored and had a larger volume of soil to draw on for water and nutrients compared to the amended treatments. Adding additional fertilizer to the amended soil treatments was only slightly helpful in overcoming the growth restriction of the soil amendments. This is thought to be due to the nitrogen tie-up by the decomposition of the organic materials such as peat and ground pine bark. When studies were made of water-holding capacity, the amendments increased the amount of water held immediately following irrigation, however, after several weeks, the amended soils were dryer than those without amendments. This is probably due in part to the higher evaporation rate of the amended soils at the soil surface plus the fact that the root system of the test plant was confined almost entirely to the amended soil and was not drawing from surrounding soil moisture as was the case when no soil amendments were added. Peat and ground pine bark should not be used as soil amendments but can more effectively be used as a mulch on the soil surface to reduce soil temperature, soil erosion, and compaction.

Credit: "Our Collaborator" 4/84