



## **DEEP ROOT APPLICATIONS**

For trees and shrubs, a surface application of fertilizer may be used up by the lawn before it can penetrate down into the root zone of these woody perennials. Deep root feeding below the root zone of the grass effectively provides nutrients to trees and shrubs. The ideal fertilizer for deep root feeding is a liquid, low salt product containing chelated macro and micronutrients that releases slowly into the root zone.

Several application methods are used for deep root feeding. All of these methods involve penetrating the root zone around the drip line of the tree or shrub (the feeder roots form a circle 2-4 ft. wide around the drip line). One method is to pierce, dig, or drill a number of holes in the ground 6" to 12" deep and pour the fertilizer into them. A second method is to rototill around the drip line just deep enough (2-3") to break up the sod but not disturb many of the roots of the tree or shrub (on shallow-rooted trees such as maples this method may not be possible). Then use a soaker hose or a hose-end sprayer to apply the fertilizer. A third method is to apply the fertilizer without any previous tillage. A longer time must be allowed to effectively penetrate the root zone. The fourth method uses a hollow tree spike which is pushed down into the root zone. The fertilizer is injected through the spike. It may be impractical to use this method on highly compacted soils; in this situation it is better to bore a hole or use tillage.

Tree and shrub fertilizers are applied in the early spring or in the fall. When performing deep root feeding by injection or through bored holes on trees and shrubs, use a grid pattern with points every 2 or 3 feet starting at least a foot away from the base of the tree or shrub and extending one or two feet outside the drip line (start fertilizer from the trunk on larger trees). AGGRAND Natural Fertilizer should be applied at 4-32 ounces per tree. The ratio of water to fertilizer is 4 oz. of fertilizer to one gallon of water for hand watering down to one half ounce per gallon for injection and soaker hoses. When pouring the AGGRAND 4-3-3 solution into holes, put 1 qt. of solution into each hole. Younger trees and shrubs and those in sandy soils need half the above rate applied both spring and fall.