

What is the best method to fertilize woody plants?

The roots of woody plants do not go dormant and do not harden-off more than a few degrees to adverse temperatures as does the shoot system. In general, non-woody roots of trees in the temperate zone will withstand temperatures as low as 28 degrees Fahrenheit and as high as 94 F.

For trees growing in the forest, the roots are protected from excessive fluctuations in temperature and moisture by leaf litter and other debris that accumulates on the soil surface. In the urban environment, however, leaves are typically removed and replaced with turf grass, which does not buffer adverse environmental conditions and actually competes with trees for the growth factors in the soil.

In addition, heavy clay or compacted soil impedes oxygen and water penetration and movement, resulting in surface rooting. The surface of the soil becomes the hottest, coldest, and driest during temperature and moisture extremes. Trees growing under these conditions benefit from subsurface applications of nutrients that encourage deeper rooting to avoid competition and injury.

Suspending fertilizer in a water carrier, which is injected under pressure at a depth of 4 to 12 inches, creates capillaries that enhance air and water movement while distributing nutrients throughout the desirable root zone.

