

ARBOR DAY AND TREE FERTILIZATION

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Arbor Day is Friday, April 29. With recent tree losses and expected loss of trees from emerald ash borer, other pests and environmental stress, consider planting a shade tree. Community tree canopy is important.

As planting begins, questions about fertilizing trees are asked. As a general rule, nitrogen is not recommended at planting. It could burn tender young roots and promote top growth at the expense of rooting.

In the years after planting, fertilizing trees is usually not needed. Most Nebraska soils are fertile enough to support tree growth.

While we fertilize lawns two to four times a year, part of the reason is we mow the grass and plants continuously puts on new growth throughout the season. Trees only have one growth spurt in spring.

For trees growing in or near a lawn, they receive nutrients each time the lawn is fertilized. In many cases, this is more than would be recommended for trees.

Applying additional fertilizer, through a broadcast application or with tree spikes or root feeders, would be unnecessary and often excessive. This can damage trees or set them up for pest attack.

There may be some situations where trees need fertilization, such as in sandy soils or new construction sites where top soil has been removed and not replaced.

If a tree exhibits poor growth or reduced vigor, despite having adequate moisture and is not experiencing pest problems or other environmental issues, the proper application of fertilizer might be needed.

Generally, new twigs should grow 6 to 12 inches annually on young, established trees; 4 to 9 inches on middle-aged trees; and less than 4 inches on mature trees. This will vary some with tree species and their natural growth rate.

A current year's twig growth is measured from the tip of the twig to the first ring of bud scale scars located down the twig. This growth also appears more tender and a slightly different color than growth from previous years.

If trees are not growing at this rate, eliminate other factors that may be limiting growth. These include moisture deficiency, soil compaction, and poor drainage. If a tree is planted too deep, this can lead to slow growth.

Trees that are stressed by environmental conditions, like drought, or poor growing conditions such as soil compaction, should not be fertilized. Forcing a stressed tree to grow only increases stress. Eliminating or easing the stress will be more beneficial than fertilizing.

A nutrient commonly deficient in a few types of trees is iron and sometimes manganese. This causes tree leaves will be pale green to yellow and have darker green veins and is known as iron chlorosis.

Our soils have plenty of iron but they tend to have high pH making iron less available to plants. Some trees, especially non-native oak trees and some maples, like red and silver maple, have trouble taking up iron in high pH soils.

In these cases, an application of iron sulfur to the soil, or iron injected into the tree, is needed. When selecting trees for planting, avoid those known to have iron chlorosis.