Soil Amendments When Planting Trees

Presented by the Ohio Chapter International Society of Arboriculture

The Ohio Chapter International Society of Arboriculture is committed to advancing responsible tree care practices through research, technology, and education while promoting the benefits of trees. We remind those who own and manage trees, that trees need to have properly applied soil amendments to improve tree health and vitality.

Why and when do you need to add Soil Amendments when planting trees?

Soil amendments are often a "best practice" when planting trees when there is soil test data that indicates that these materials will improve the long-term future of the subject tree that is being installed. Adding amendments can improve soil conditions, however, if they are applied they can create conditions that will increase the likelihood of tree mortality. **Remember...Do NOT Guess and add anything without a Soil Test prior to planting a tree.**

There are at least four factors to consider in selecting a soil amendment that includes how long the amendment will last in the soil, soil texture, soil salinity, and plant sensitivities to salts and salt content and pH of the amendment. This information in many cases should be predetermined prior to using or applying soil amendments.

Reasons to use or not to use Soil Amendments

- On clayey soils, properly applied soil amendments improve the soil aggregation, increase porosity and permeability, and improve aeration, drainage, and rooting depth.
- On sandy soils, properly applied soil amendments increase the water and nutrient holding capacity.
- A variety of products are available bagged or bulk for soil amendments. However, soil amendments are not regulated. Many are extremely high in salts. Salts burn and hurt plants.
- Manure and manure-based compost are readily available. These are often high in salts, limiting application rates. Use with caution.
- Plant-based composts are low in salt. These may be applied at higher application rates, more effectively improving the soil.
- Don't add sand to clay soil — this creates a soil structure similar to concrete.
- Ideally, the landscape and garden soils are improved to 4-5% organic matter. At this level, the mineralization (release) of nitrogen from the organic matter will be adequate for most plants without additional fertilizers.

There are over 1,000 qualified tree experts in Ohio that have been designated by the International Society of Arboriculture (ISA) as Certified Arborists. To find an ISA Certified Arborist® in your area, visit www.Trees4Ohio.org.

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