

Exciting New Treatment!

For the entire 40 years we've been in business we've never recommended adding 'Soil Amendments' to our customers lawns. In our opinion, up until a few years ago, the benefit of the many Soil Amendments have been questionable. Recently that has changed.

There are 2 substances that could potentially have a tremendous benefit to your lawn. What are they? Biochar and Humic Acid.

What do they do? Why should I pay for an additional application?

First of all, they are not fertilizers, they are Soil Amendments. Biochar and Humic Acid both have similar benefits. Both are extremely beneficial in helping the soil retain nutrients rather than allowing them to leach out. In other words, these substances will allow the fertilizers we apply to be retained better and subsequently released in the soil, rather than leaching out or not being usable. Secondly, both products help the soil retain water, and then release that water as the grass needs it. Neither product can take the place of regular watering, especially during dry periods. Many studies have proven that these Soil Amendments are especially beneficial for sandy soils. See back page for more details on these substances

The product we use is called "Anderson's Humic DG CharX".

What is Biochar?

Biochar, on a microscopic level, can be compared to a porous sponge. This characteristic helps the soil retain water by pulling the water in, and retain nutrients in the pore as well. Both are released as needed through an amazing exchange process called Cation Exchange, which is measured in the soil by Cation Exchange Capacity (more on that below). In addition, the pores provide a place for beneficial microbes to live, and make themselves available to improve the soil. Biochar is resistant to degradation. In contrast, organic material will break down with microbes, and therefore is somewhat short-lived. Organic lawn care fertilizers usually contain some kind of waste, such as turkey manure, which will be broken down by microbes. Biochar is organic matter that has been broken down by a special heating process to the point that there's nothing left for the microbes to feed on. It is somewhat similar to charcoal in that sense. Therefore, you don't necessarily need to apply it annually.

An additional benefit is that Biochar can reduce water needs in the soil. Several studies have been done to indicate that Biochar can reduce watering up to 30%. This would not apply to dry periods, when the lawn is struggling to survive. Please don't reduce watering during hot dry periods!

What is Humic Acid?

Humic Acids have many of the same characteristics of Biochar. They are longer lasting than typical organic matter, they help the soil hold water and nutrients, and improve CEC. Unlike Biochar, which is formed from a special heating process, Humic Acids occur naturally and have to be mined out of a rocky substance called leonardite. Humic Acids are very beneficial in raising the Cation Exchange Capacity in the soil.

What is Cation Exchange Capacity (CEC)?

Cation Exchange Capacity (CEC) is a measurement of the soil's ability to exchange nutrients with a plant. In our case... grass. You would think it would be simple – you add fertilizer or other nutrients, and the grass benefits. It's not that simple! It all depends on the quality of the soil.

Some nutrients are positively charged and are called Cations. The primary ones are Potassium, Calcium, Magnesium, Hydrogen, and Sodium. Smaller quantities of Cations are need as well such as Iron, Zinc, Manganese, and Copper. If the grass plant needs one of these nutrients, it has to "Exchange" a Cation (usually Hydrogen) for the Cation it needs from the soil such as Potassium. The problem can be that, because soil is negatively charged, and opposites attract, the soil wants to hold onto the positively charged nutrients mentioned above. Some soils have a poor Cation Exchange Capacity, and the plant cannot make the 'exchange' for the nutrient needed. Result? Weak looking grass! Sandy soils in particular have very low CEC ability. Low CEC = locked up nutrients.

Other nutrients are negatively charged like the soil, and are called Anions. These include Nitrogen, Phosphorous, and Sulfur. The soil is negatively charged, and these nutrients are negatively charged. Opposites want to stay apart, so these nutrients typically don't last very long in the soil, and tend to leach away. Humic Acid also helps the soil hold onto these nutrients (the fertilizers we apply) and not leach out.

The Bottom Line?

Biochar and Humic Acid products provide benefits to any lawn, but especially to soils that are highly sandy. The two biggest benefits are retention of water/nutrients, and improving the CEC of the soil.