

BioCharge is the base of all the EarthWorks Foliars+ products and is what allows these products to provide a sustainable soil environment and improve turf playing conditions. BioCharge is a very diverse package of carbon and minerals designed to feed microbial populations and provide the plant with a host of needed nutrients which includes a proprietary complex of humic acids, over 25 amino acids, and more than 75 minerals. For more information go to [www.soilfirst.com](http://www.soilfirst.com)

## Calvantage

*Available calcium is the backbone of all plant material*

1. Provides multiple forms of calcium along with boron, an essential catalyst, to move the calcium up into the plant.
2. Can help to knock sodium and bicarbonates off the soil colloid so they can be flushed through the root zone.
3. The carbon base, BioCharge, helps to ensure that microbes are involved quickly in the uptake of this important nutrient and in the process stimulates a strong biological profile in the root zone.
4. Calcium helps to provide turgidity to the cell structure keeping the plant strong and capable of fighting off pathogen attack.
5. The humic acid complex helps to stabilize the calcium in the root zone holding it for longer lasting availability.

**CalVantage** combines multiple forms of calcium and boron with the BioCharge carbon base creating a product with significantly improved calcium uptake potential. The use of multiple forms of calcium helps to ensure that adequate amounts of calcium can mobilize into the plant. This product also has balanced levels of boron, the "gate keeper" for calcium, that opens the plant's passageways allowing this large element the opportunity to move up into the plant. The proprietary humic acid complex ensures that the calcium stays in the rootzone where it can ultimately be taken up.

**CalVantage** has the ability to flush both sodium and bicarbonates from the rootzone. Sodium and bicarbonates may be the first limiting factor in growing quality turf or any plant material. This calcium complex can knock sodium and bicarbonates off the soil colloid; and the humic acids can keep them from reattaching to the soil pulling them out of the root system. This can reduce the potential for sodium induced wilt and localized dry spots.

**CalVantage** is powered by BioCharge which significantly helps this large molecule move into the plant. The multiple forms of trace elements and amino acids help protect the calcium, and the ample carbon inputs bring microbes to the table to push the calcium up the plant through the xylem. Calcium does not move down through the plant leaves to the roots, it only moves up the vascular system. Having a calcium complex surrounded with soil conditioning microbial food will help the calcium move to where we want it.

### CALCIUM COMPLEX

**Greens and Tees:** 5 oz. per 1000 sq. ft. every two weeks. Split applications to every week on light and sandy soils. Increase rates to 8-10 oz. per 1000 sq. ft. on sites with poor vigor or on sites with identified calcium deficiencies.

**Sodium Flushing:** 10 oz per 1000 sq. ft. as needed

**Fairways:** 1 gallon per acre per month or as needed.

**Sports Fields:** 1.5 gallons per acre once per month or as needed.

**Ornamentals:** 4 oz per in 2 gallons, diluted 50:1, drenched into the soil around the root ball.

Available in a 2 x 2.5-gallon box and 55-gallon drums



**EarthWorks**  
A Deeper Respect

800-732-TURF

info@earthworksturf.com  
www.earthworksturf.com

