



# Products Information

## Bison Soil Organic Biochar for Tomatoes



### **Bison Soil Organic Biochar for Increased Yields and Reduced Disease**

Increased production of fruits and suppression of plant disease are desirable characteristics for tomatoes just as they would be for any crop. In University studies, tomatoes have been shown to respond positively to biochar added to soils. In University studies tomato plant growth and fruit production was significantly enhanced by biochar applications at 1, 3 and 5% (w/w). Increases were noted in most measured plant parameters: leaf area, canopy dry weight, number of nodes, and yields of buds, flowers, and fruit.

University studies also found that additions of biochar (1,3,5% by weight) successfully induced resistance against two foliar fungal pathogens. Studies have found that soil-applied biochar induces systemic resistance to the foliar fungal pathogens *Botrytis cinerea* (gray mold) and *Leveillula taurica* (powdery mildew) on tomato plants. Levels of 1 to 5% biochar were found to be effective at suppressing both diseases in leaves of different ages.

### **Description of Bison Soil Organic Biochar**

Bison Soil Organic Biochar for the tomato industry is sold by Bison Soil and optimized for superior performance to enhance plant growth by retaining nutrients and water; by improving soil physical, chemical and biological properties; by enhancing crop growth with less agronomic inputs; by increasing beneficial microbial colonization; and by reducing pathogens.

This Bison Soil Organic Biochar is manufactured from clean wood biomass to maximize its ability to improve soils and fruit production.

Bison Soil Organic Biochar lasts for hundreds of years, so it stays in the soil providing benefits for tomatoes for years and years. Bison Soil Organic Biochar is not only good for peppers, but it is also good for the planet because it is a natural, USDA Certified Biobased soil amendment that is derived from plant biomass that would otherwise be a waste product in a landfill.

### **Application Rates for Bison Soil Organic Biochar**

With its ability to improve soil, plant production and fruit yield, Bison Soil Organic Biochar is ideally suited for use in tomato production. The rates below are based on University research and provide general guidance for the use of Bison Soil Organic Biochar. Studies have determined that 1-5% (w/w) has been effective in improving crop yields, combating disease and improving soil quality.

These are typical application rates, and rates for a given situation depend on the soil type and condition. We thus suggest that trials be conducted with your specific soil and tomato plants to determine the best Bison Soil Organic Biochar concentrations.

Bison Soil Organic Biochar can be applied to each plant or in rows, either when it is first planted or it can be worked into the soil around each plant. Adding 2-5% (w/w) requires approximately 17 to 45 cubic feet, respectively, of Bison Soil Organic Biochar applied in banded rows per acre. This is equivalent to approximately 300 to 800 lbs of Bison Soil Organic Biochar.