



airterra

SoilMatrix™ Biochar Inoculation

Biochar -- charcoal re-discovered for gardening and improving plant health.

Biochar is a unique charcoal produced in a controlled environment that results in a highly porous material that serves as a perfect home for beneficial microbes and fungi to flourish and deliver nutrients to plant roots. Inoculating biochar is a way of pre-filling the biochar pores with microbes that will bring your garden to its maximum potential when blended at about 10 to 20% by volume with good quality compost or 1 to 2 parts inoculated biochar with 9 to 8 parts compost respectively.

AirTerra's Inoculation Recipe

Ingredients:

1 box of AirTerra's™ SoilMatrix™ Biochar (6.5 litres)
1 litre of worm castings or high quality compost
½ litre of flour of any kind – carbohydrates for microbes to munch on
Optional ingredient: ½ litre of volcanic rock powder (i.e. CanAmaze VRP®) containing calcium, which can be important for tomato plants.
1 ½ litre of water (rain water is best, or degassed tap water by letting it sit for a day)
60 litres of compost (2 x 30 litre bags)

Method:

(Caution: handling dry biochar can be an irritant to skin causing dryness – wearing rubber or latex gloves to blend ingredients by hand is recommended)

In a large container, blend 1 box of AirTerra SoilMatrix Biochar (6.5 litres) with 1 litre of worm castings (or 1 litre of quality compost) along with the ½ litre of flour (and ½ litre of volcanic rock powder – optional). Blend all of these dry ingredients together evenly. Now add in 1.5 litres of water or more to ensure all of the ingredients are damp but not drenched. Blend well enough to ensure no dry ingredients remain.

Let this mixture age for at least 2 days to allow the microbes to populate the biochar fully. After a couple of days (be sure to use of this blend within 2 to 3 weeks), the inoculated biochar is ready to be blended into about 60 litres of compost.

This amount of material can now be top dressed onto garden beds or flower beds to a depth of about 1 inch over an area of 35 to 40 square feet. Work your inoculated biochar-fortified compost into the soil with a garden trowel to a depth of a few inches to allow plant roots of have access to it. If you don't get it all worked in, earthworms will happily complete the work for you.

To really 'super-charge' your garden, blend only 30 litres of compost with the inoculated biochar or double the above recipe and blend with 60 litres of compost.

Best of all, you will need to do this only once for each treated area of soil. Biochar remains in your soil for a lifetime – it does not decompose like compost. All you will need to do is replenish your soil with compost from time to time, but less often because biochar holds onto nutrients longer than straight compost. When the rains come, your biochar will hold nutrients for your plant roots instead of letting them be leached through the soil.

Let us know how it works for you. We would love to hear from you!

AirTerra Inc.

www.airterra.ca

Phone: (403) 830-0188

rob@airterra.ca

@soilmatrix - Twitter

@soilmatrixcanada - Instagram