



## Application of Biochar as Fertilizer and Restorative in Agriculture

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### Message from the Guest Editor

Dear Colleagues,

Biochar (BC) is a carbon-rich stable inert compound produced. Its physical and chemical properties include a large surface area, high cation exchange capacity, being rich in organic carbon, high water-holding capacity, a porous nature, and significant amounts of plant nutrients, which accelerate microbial population in the soil. BC has the potential to improve the soil's physico-chemical properties. Biochar also significantly improves the nutrient uptake by plants and thus contributes to the enhancement of photosynthetic attributes, which eventually increases crop production. It also immobilizes the toxic heavy metal in soil and reduces phytotoxicity in plants.

The indiscriminate use of agrochemicals has not only an adverse impact on soil but also a detrimental effect on air and water, which has a damaging effect on human health. To combat the situation, dependence on agrochemicals must be minimized by reducing the use of synthetic chemicals and replacing them with alternative sources. This research topic will provide a holistic approach to sustainable agriculture using biochar as a quality soil conditioner.

Dr. Tanmoy Karak

*Guest Editor*



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