In order to improve the quality and quantity of agricultural processes, chemical additives are fertilizers are added in large quantities to stimulate growth. One common fertilizer is known as superphosphate which contains phosphate, magnesium sulphate and potassium. This is often applied to both backyard gardens and large-scale farming projects. However, after heavy rains these chemical products can often leach into water sources.

This leads to eutrophication – the enrichment of nutrients within a water source that can lead to increased algae growth and eventual de-oxygenation and species death.



How is biochar created?

Biochar is created through the pyrolysis (burning) of biomass in a low oxygen environment. Biochar can be made in small scales in modified kilns or in larger scale processes in industrial sized pyrolysis sites. These different options for pyrolysis mean that it is a versatile solution as farmers can either choose to process the biochar on their own farm or to purchase from a large scale process.

What can we do to facilitate the use of biochar?

- Run workshops to teach people how to create the biochar with a specific focus on how to build the correct type of kiln preferably made out of recycled materials
- State level green waste collections to be funnelled into industrial facilities to create biochar that can then be distributed back to the community



So how can we stimulate the growth of crops without putting our water sources at risk?

Biochar is a form of charcoal that is made out of biomass. It is used to retain the nutrient levels within the soil once excess nutrients have been added. Nutrient laden biochar can be created by impregnating the biochar with manure. This nutrient-laden biochar is able to provide the necessary excess nutrients to stimulate further crop production without having as much run-off.

Furthermore, biochar is a carbon-negative process. this means that the amount carbon that is sequestered by the biochar exceed the carbon that is released into the atmosphere through the biochar creation process. this means that this process is not only beneficial to our agricultural industry but it will help our whole environment from the skies to the seas.

Copious amounts of green waste will be a thing of the past by turning your garden waste products into biochar to help your garden thrive.