AGRICHAR

Increasing nutrient use efficiencies in agriculture

What challenge or problem are you addressing? What is the need for the project?

Inorganic fertilizer application in agriculture is not sustainable at current levels due to soil erosion, groundwater pollution and lack of resources in the long term e.g. rock phosphate. Recycling of organic materials in agriculture and increasing nutrient use efficiencies are vital for future agriculture to support the world population with food sustainably. In order to make nutrients in recycled waste available to plants, soil microbes need to actively mineralize bound nutrients such as phosphorus and sulfur (Fig. 1).

Objective of the project: What your project wants to achieve/change

Application of biochar to agricultural land, made of recycled organic waste to improve microbial nutrient mineralization and maximize nutrient use efficiencies

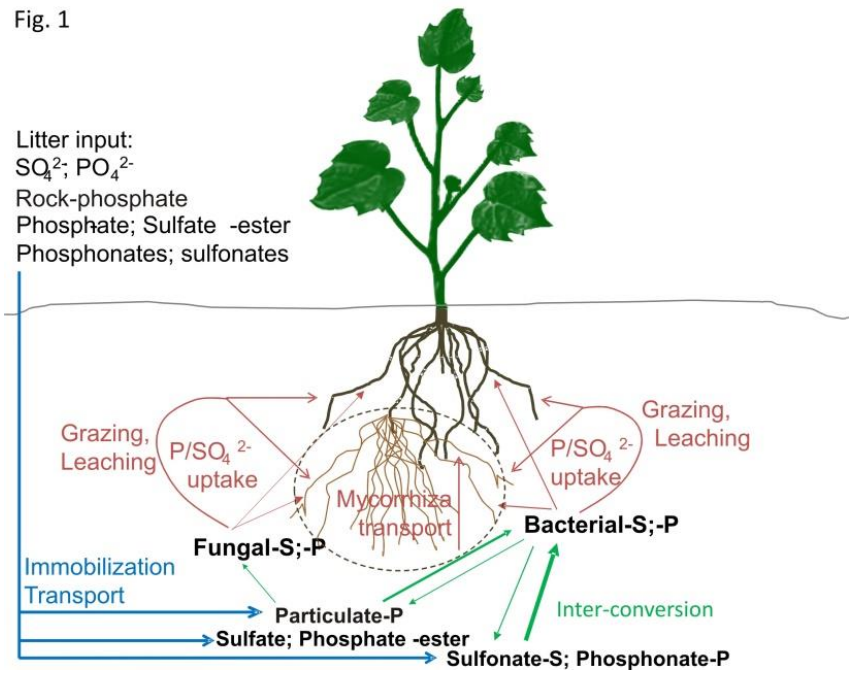
Why do you need transnational cooperation?

Production and application of biochar should be made regionally to limit costs of transport. Differences in soils, preferred agriculture and differences in the climate will influence nutrient use efficiencies and thus field trials need to be performed transnationally.

What kind or partners are you looking for?

Agronomists, farmers, chemical engineers, soil scientists and soil microbiologists

Fig. 1



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