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Effect of bio compost on soil chemical properties and nutrient uptake in paddy (*Oryza sativa* L.) under high pH soils

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Abstract

Cultivation of high yielding crop varieties and multiple cropping is depleting the fertility of soils at a rapid pace. The soils, which were, once supplied with available nutrients, are now gradually becoming deficient. Use of organic materials can be beneficial to improve organic matter status. Bio compost is a rich source of nutrients with high organic matter content. Physical and chemical properties of soil can be improved by using this bio compost, which may ultimately increase crop yields. So use of this biocompost is the need of the time. Keeping this fact in view, a pot culture experiment was conducted to study the effect of biocompost on soil chemical properties and nutrient uptake under two different soil pH levels using rice as a test crop at Anbil Dharmalingam Agricultural College and Research Institute, Trichy, Tamil Nadu. Application of Biocompost (BC) @15 t ha^{-1} significantly increased the organic carbon content, soil available macronutrients in both the soils. The percentage of yield increase due to application of Biocompost @15 t ha^{-1} was spectacular in high pH soils over neutral soil. Based on the increase of soil available nutrients and as well as yield increase it can be concluded that Biocompost @15 t ha^{-1} can be recommended as a nutrient source.