



Acidity variables and exchangeable calcium and magnesium on an oxisol treated with phosphate alkaline biosolid [

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text (article)

Analítica

The alkaline biosolid enriched by phosphorus (P) can increase the soil extractable P₄ and exert further effects about soil acidity variables and exchangeable calcium and magnesium. This fact can also contribute to the reduction of problems related to its final destination and attract farmers to the use of adequate quantities of these biosolids in agriculture by reduce his costs with soil fertilizers and liming operations. This work aimed to evaluate the acidity variables and exchangeable calcium and magnesium on an Oxisol treated with an alkaline biosolid that received different levels of phosphorus (P) from three sources after common bean grown under greenhouse condition. An alkaline biosolid received 0% P, 0.436% P, 0.872% P and 1.745% P from the partially acidulated rock phosphate Alvorada, single superphosphate and triple superphosphate. To the treatment establishment was recommended 45.85 kg P ha⁻¹ from the treatments, except from the 0% P. Four levels and 3 sources of P addition generated 12 treatments with 4 replications. Treatments were applied 2.5 kg dry weight of an Oxisol from Contenda, PR, Brazil, in vases which was cultivated with 6 common bean plants (cv. IPR Uirapuru). After the plant harvest the soil analysis showed increases in the soil pH (CaCl₂ 0.01 mol dm⁻³), exchangeable calcium, magnesium and decreases in aluminum and potential acidity due to the treatments. The assessed variables showed the larger alterations due to the levels 0.436% of P addition in alkaline biosolid from partially acidulated rock phosphate Alvorada and single superphosphate

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