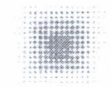




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Short Communication

# Fate of manure phosphorus in a weathered sandy clay loam soil amended with three animal manures

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## ABSTRACT

Laboratory incubation was conducted for 120 days to study the fate of phosphorus in poultry (PM), cattle (CM) and goat manures (GM). Phosphorus mineralized from manure was dependent on total P, Al and Fe content. Manures improved P availability in the order: PM > CM > GM; however, the highest amount of P was fixed or immobilized between 10 and 70 days of incubating with CM and GM. Fixation and immobilization of mineralized P from poultry manure was negligible probably due to the high total P and the low amount of Al and Fe. Generally, manure application reduced the ability of the soil to fix P. More than 90% of the manure P was either immobilized or fixed by the soil. The relationship between the amount of P released and time was cubic. Improvement of the C:P ratio of CM and GM would be an option to enhance their agronomic use as fertilizer P source.