Changes in Manure Extractable Phosphorus with Metal Addition and Composting. (A05-sikora135504-Poster)

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Abstract:

High Phosphorus content of manures reduces the amendment rate to fields. Manure treatments may reduce the soluble or extractable P and allow for higher application rates. Laboratory bench composter studies were conducted using poultry litter and poultry manure to determine changes in manure extractable P with composting. Neither water or Mehlich 3 extractable P changed appreciably during the composting of poultry litter. Addition of Fe and Al-containing byproducts to the litter decreased extractable P levels and composting did not change the outcome. Phosphate sorption measurements showed that Fe by-product was more effective at reducing dissolved reactive P than Al by-product and enhanced the formation in sodium hydroxide extractable P. Water extractable P levels were reduced with composting of fresh poultry manure and with Fe or Al addition. Manure type and age may affect the immobilization of P by composting.

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