Soil fertility restoration techniques in sub-Saharan Africa using organic resources

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Abstract

Food security concerns are currently escalating in sub-Saharan Africa (SSA) due to poor soil management practices on the fragile soils. This review describes the role of organic resources acting both as amendments and fertilizers in improving soil nutrient status and productivity potentials in SSA. The use of organic resources has achieved significant strides in improving soil fertility in many agro-ecological zones in SSA. Balanced fertilization of soils through synchronized supply of adequate nutrients to growing crops as well as increasing soil organic matter content over the long term are major gains realized through application of organic resources. Constraints that limit utilization of organic based soil nutrient management systems were also highlighted; with the conclusion that more committed research activity and better adoption of developed technologies would lead to promotion and establishment of the gains of procuring and utilizing organic resources for soil fertility improvement in SSA.