Abstract

A six session study on the response of maize to boma manure was conducted on farmer's field in Wamuyu, Machakos District in the Eastern province of Kenya to; a) determine the yield response of maize to application of boma manure in the $0^{-1}00$ t ha^{-1} range, b)evaluate the benefits of banding of boma manure as compared with broadcasting, c)determine the residual response to boma manure application; d)compare the response of boma manure with that of inorganic fertiliser. The soil on the experimental site was a well drained ,dark red, loamy sand with an average of 16.64 mg kg^{-1} extractable P and 0.065 % total N in the 0^{-1} cm depth. Maize grain yield and total dry matter markedly increased with increasing rates of boma manure while placement method and interaction between placement and rate of application effect. A combined analysis indicated that there was no significant increase in grain yield above the rate of 40 t ha^{-1} of manure. Using inorganic fertiliser at the rate of 20 kg N ha^{-1} + 20 kg P ha^{-1} was found to be the best option in terms of economic benefits. The residual effects of the manure were, however, still very evident in the last season, indicating that more benefits would have been obtained from manure over a number of succeeding seasons, especially from the high rates ($60^{-1}00$ t ha^{-1})