

Multiple regression models were used to predict ME from the proximate composition of 345 tropical forages and 37 concentrates. ME was derived from published digestibility experiments with sheep and cattle. Linear, quadratic and cubic terms of the proximate components were used in regression analyses. Predictors were derived under the conditions of maximum coefficient of determination (R^2) and practicality. On the basis of both criteria, predictive equations for ME for forages and concentrates are presented. Correlation coefficients were of the order of 0.5 when predicted ME values were validated against known ME values for different forages in eastern and southern Africa. It is concluded that the predictors developed are simple and practical and can be used with 80% accuracy to predict the ME value of tropical forages and concentrates allowing for 1.4 MJ ME deviation from the mean.