

The soils used in the greenhouse trial ranged from 4.2 to 5.0 in pH, 1.74 to 4.56 in percentage C, 21 to 32 meq/100 g in CEC, 5.1 to 8.1 meq/100 g in exchange acidity, 0.6 to 3.2 meq/100 g in exchangeable Al and 0.13 to 0.67 meq/100 g in exchangeable Mn. Exchangeable acidity, Al and Mn decreased with increasing added lime levels. Mean DM yield of *Phaseolus vulgaris* and maize and mean nodule dry wt. of *P. vulgaris* generally increased significantly with increasing lime levels up to pH 6.0, but decreased progressively with increasing lime levels beyond this value. The opt. pH range for the growth of maize and beans and for the nodulation of beans was considered to be 5.5 to 6.0.