In greenhouse trials with Phaseolus vulgaris cv. Canadian Wonder grown on 5 acid soils of pH 3.9-5.1, nodule wt. decreased with increasing percentage soil C, and at 5.60% C no nodules were observed. In soils with low OM and low exchangeable Al and Mn, inoculation increased nodule wt., DM yield and percentage N especially at the lowest pH level. Where seeds were not inoculated, nodule wt. and DM yield increased with soil pH. Lime pelleting had no apparent advantage. In soils with low OM and substantial amounts of Al and/or Mn, liming increased nodule wt. and DM yield, and lime pelleting was superior to inoculation in increasing nodule wt. particularly at low lime rates. In soils with relatively high OM, high lime rates decreased DM yield.