There is increasing need for environmentally safe and economically profitable farming systems. Greenhouse trials for the production of cucumber was carried out in Kenya at Egerton University, Department of Horticulture in 2003 and 2004 to compare the economics of using four nitrogen sources and three mulching materials. Based on partial budget analysis in an on farm scenario, there was no consistency in profitability of using the nitrogen sources and mulch types. In trial 1, Urea and transparent mulch were the most profitable nitrogen source while in trial 2; potassium nitrate and straw mulch were more profitable. These economic benefits make urea and potassium nitrate, and transparent polyethylene and straw mulch attractive alternatives for producing fresh market greenhouse cucumbers.