A field experiment was conducted during rabi '2010 to find out the response of foliar application of micronutrients on growth, yield and seed quality attributes, in two varieties of tomato viz- Utkal Kumari and Utkal Raja. The treatments consisted of boron, zinc, molybdenum, copper, iron, manganese, mixture of all and control. All the Micronutrients except manganese (@ 50ppm) were applied @100ppm in three sprays at an interval of ten days starting from 30 days after transplanting. All the treatments resulted in improvement of plant growth characteristics viz. plant height, number of primary branches, compound leaves, tender and mature fruits per plant in both the varieties out of which application of micronutrients mixture showed the maximum effect. The highest fruit yield of 35.5t and 37.4t and seed yield of 181.05kg and 205.70kg per hectare were obtained in UtkalKumari and Utkal Raja, respectively with application of micronutrients mixture. This treatment also enhanced the seed quality attributes viz. germination, field emergence, seedling growth, seed vigour and storability. Application of boron was also found equally effective.