In a field trial organized in the ecological conditions from Iași, in 2002 and 2003, it has been studied the influence of some microelements applied as solution to the soybean seeds used for seeding. The microelements have been applied on a soil background with N48P96. The microelements: boron, molybdenum, manganese and copper have determined a bigger number of nodosities on the plant, the increasing of the leaf area and a higher content in protein and fats. The seed yield has increase in all the variants with microelements, comparing to the unfertilized control variant and also comparing to the variant wich has been fertilized with N48P96 but without microelements.