ABSTRACT

This study aims to examine the effect of solid and liquid compost made from coffee pulp waste on the chemical properties of Ultisol, a soil type with low fertility and pH. Ultisol is a soil with advanced development, characterized by the presence of an argillic horizon, increased clay content, and low levels of fertility and pH. This study employed a two-factor randomized group design with three replications. The first factor consisted of four levels namely control, solid compost of coffee skin waste mixed with rainwater, solid compost with palm oil mill liquid waste (LCPKS) and solid compost with urea mill liquid waste (LCPU), the second factor also consisted of four levels, namely control, liquid compost of coffee skin waste mixed with rainwater, liquid compost with LCPKS, liquid compost with LCPU. The parameters of soil chemical properties observed were N-Total, pH (H_20) and pH (KCl). The results showed that the application of solid and liquid compost fertilizers of mixed coffee skin waste increased the chemical properties of Ultisol soil in the parameters of total nitrogen, pH (H_2O) and pH (KCl) with an increase in N-total by 0.15%, pH (H_2O) 1.2 and pH (KCl) 0.8. The best treatment was found in the treatment of solid compost + LCPKS and liquid compost + LCPU.

Keywords: Coffee skin waste, compost fertilizer , palm oil mill effluent, Ultisol.