ABSTRACT

Studies on influence of addition natural zeolite from Blitar East Java to releasing elements of nitrogen, phosphorus, and potassium in mixed fertilizer have been conducted and show effective usage at 10% use of natural zeolite of Blitar East Java among is fifth of addition variation is percentage of zeolite at unsure release of nitrogen, phosphorus, and potassium in this mixed fertilizer. Natural zeolite of Blitar Java East have been checked in this research by using procedure identify and analyse early for example hitting to identify natural zeolite physical, X-ray diffraction analysis, obstetrical analysis Si, Al, K, Na, Mg, Ca, Fe. Mixed fertilizer come from urea fertilizer, SP-36 and KCL with composition 15% : 15% : 15% (w/w). Urea as source of nitrogen hara, SP-36 as source of phosphorus hara in the form of P₂O₅, and KCL as source of potassium hara in the form of K₂O. Mixed fertilizer without used natural zeolite is mixed fertilizer control while mixed fertilizer with natural zeolite use 2, 4, 6, 8, 10% natural zeolite. Overall of the fertilizer made by pellet in the form of tablet 10 gram pressurized 2 ton is later on tested to its release in 500 mL irrigate during a time gap 24, 48, 72, 96, and 120 hour.