ABSTRACT

Red lettuce (*Lactuca sativa* var. Crispa) is a type of leaf lettuce. This type of lettuce has red, wide, thin leaves that grow in clusters and appear curly. The anthocyanin content in lettuce gives this variety its red color. Red lettuce plants require nutrients to promote growth and development. These nutrients can be derived from both organic and inorganic sources. The purpose of this study was to determine the effect of providing organic chicken manure and liquid organic fertilizer (LOF) from cow urine on the growth and yield of red lettuce plants. This study was conducted at the experimental garden of Malikussaleh University, North Aceh Regency. This study was carried out from May 2025 to July 2025. This study used a factorial randomized block design (RBD) research method with three replications. The first factor was chicken manure consisting of (A0) 0 g/plant, (A1) 75 g/plant, (A2) 150 g/plant, (A3) 225 g/plant. The second factor was cow urine LOF consisting of (S0) 0 ml/l water, (S1) 200 ml/l water (S2) 400 ml/l water. The results showed that the application of chicken manure had a significant to very significant effect on plant height, number, length, width, leaf area, and fresh weight. The application of cow urine fertilizer significantly affected plant height, number of leaves, leaf width, leaf area, and fresh weight. There was also an interaction between treatments on the variables of plant height, number, length, leaf area, and fresh weight.

***Keywords** : interaction, organic fertilizer, plant height*