## **ABSTRACT**

The study was conducted to determine the effect of plant spacing on the performance of peanut applied with guano phosphate and vermicompost, on November 9, 2018 to February 7, 2019 with the following objectives: to determine the effect of plant spacing and application of guano phosphate and vermicompost on the growth of peanut; to find out the effect of plant spacing and application of guano phosphate and vermicompost on the yield of peanut; to determine the interaction effects between plant spacing and application of guano phosphate and vermicompost on the growth and yield of peanut; and to determine the economic analysis of growing peanut at different plant spacing and application of guano phosphate and vermicompost. The experiment was laid out in a two-factor Randomized Complete Block Design (RCBD) replicated three times with three plant spacings as the Factor A, and three levels of guano phosphate and vermicompost, and a control as Factor B. It revealed that plant spacing and application of guano phosphate and vermicompost had no significant effect on the growth and yield of peanut. Likewise, there were no interaction effects exhibited between plant spacing and level of guano and vermicompost on the growth and yield component of peanut. Plant spacing of 20 cm x 50 cm and vermicompost in peanut can be adopted to obtain higher Return of Investment (ROI).