

## ABSTRACT

Radish belongs to the type of tuber-shaped vegetable crops of the family Cruciferaeaceae or Brassicaceae. Radish resembles the shape of a carrot, but it is white in color and larger in size. Radish is used as a vegetable like soup. In addition to its good taste, white radish *Raphanus sativus* L. can also be used to cure various diseases both from the inside and from the outside. The problem faced in the cultivation of radish crops today is the low production of radish crops. So, one way to overcome the above problems is to improve and increase the need for nutrients in the soil. The purpose of this study was to determine the effect of NPK fertilizer and cow manure on the growth and production of radish plants (*Raphanus sativus* L.) The research was conducted in Gampong Paloh Lada, Dewantara District and Agroecotechnology Laboratory, Faculty of Agriculture, Malikussaleh University. This research will be conducted from June to August 2023. This study was conducted using a two-factor Group Randomized Design (RAK) research method with three repeats. The first factor is NPK fertilizer (N) which consists of N0 = NPK fertilizer 0 g / plant, N1 = NPK fertilizer 1 g / plant, N2 = NPK fertilizer 2 g / plant. The second factor is cow manure (P) which consists of P0 = cow manure 0 g / plant, P1 = cow manure 50 g / plant, P2 = cow manure 100 g / plant. The observation variables were leaf length, number of leaves, tuber length, tuber wet weight, upper plant wet weight and tuber diameter.

Keywords: NPK Fertilizer, Radish, Cow Manure