

ABSTRACT

Hydroponic cultivation of lettuce plants is able to meet the demand in the midst of the decreasing of agricultural land. The addition of nutrients and media types is crucial to the success of hydroponic cultivation. The types of nutrients that can be used for hydroponic cultivation are AB Mix, ZPT Atonic and NPK Mutiara 16:16:16, while the types of media that can be given are rockwool and cocopeat. The research observation was done at the Laboratory of Agroecotechnology, Faculty of Agriculture, Malikussaleh University, whereas the plant cultivation was done at Hydroponic Green Leaf Development, Paloh Village, Muara Satu District, Lhokseumawe. This research started from November 2021 to January 2022. The research used a Completely Randomized Design (CRD) method with 2 factors. The first factor is the type of nutrition, which consist of six levels, which are N1 (AB Mix nutrition), N2 (Atonic ZPT), N3 (NPK Mutiara), N4 (AB Mix nutrition + Atonic ZPT), N5 (AB Mix nutrition + NPK Mutiara), N6 (Atonic ZPT + Pearl NPK). The second factor is the type of media which consists of two levels, which are M1 (rockwool media) and M2 (cocopeat media). The research was each repeated three times to obtain 36 experimental units. Data analysis was done using Anova and further tests were done using DMRT at a level of 0.05. The results showed that the addition of AB Mix nutrients gave the highest value on the lettuce plant height, number of leaves, amount of chlorophyll, leaf fresh weight, and plant fresh weight. The application of cocopeat gave the highest value to the lettuce plant height, number of leaves, amount of chlorophyll, root length, leaf fresh weight, root fresh weight and plant fresh weight. There was an interaction between the treatment of the nutrition and media type on the number of leaves at the age of 2 week after transplanting. The highest number of leaves was found in the combination treatment of AB Mix nutrition and cocopeat media.

Keywords: Lettuce, Hydroponics, AB Mix Nutrients, Atonic ZPT, Pearl NPK Fertilizer, Rockwool Media, Cocopeat Media.